Vhi-UhiDIGEST

The Official Publication of the Worldwide TV-FM DX Association

JANUARY 1992

MORE F2 ON TVI



ANARG UPDATE

WHAT'S GOING ON AT ANARC?

It's been over a year since I submitted my last ANARC UPDATE. Over that time it looked like ANARC had expired, only to be revived on a respirator. Work had been going on to rebuild the organization with very little enthusiasm generated. Several meetings were held at various non-ANARC DX related functions with few ANARC reps bothering to attend.

Then came the letter. In November I received a note in my mail that there was a certified letter at the Post Office. I figured either I won the Publishers Clearing House Sweepstake or the State of New York was laying me off due to Budget cuts. It turns out it was from Sheldon Harvey at ANARC. (I was hoping I had won the \$7,000,000. Think of the great DX set up I could have purchased.) Sheldon starts off by complaining about the lack of enthusiasm among the clubs and their reps. At the last ANARC meeting held at the Monitoring Times Convention in North Carolina, only 4 clubs had reps (WTFDA not being one of them.). This was followed by demands. Some of the demands were reasonable. Others were a little harsh. Each club was expected to pay dues and give an annual donation based on the "benefits recieved from ANARC". Each club must run an ANARC club list in their bulletin, print the phrase "member of ANARC" on the bulletin and include ANARC information to all new members. Each club must designate a member to attend at least one ANARC meeting a year. There were 13 demands in all.

The letter brought an outcry from the clubs. An ultimatum was included- do this or get out. Most reps like myself are volunteers. We work, have time and financial constraints and family obligations. I know of no ANARC rep who is subsidized by their clubs. And what benefits have we received from ANARC over the last year? Have we gotten any new members through ANARC? The internal politics of ANARC began to move after the letter was made public. The

Executive Board ousted Sheldon and replaced him with Richard D'Angelo.

At this point in time I feel that WTFDA should remain a member of ANARC. Let's give it another year. Let's see what type of organization developes. And let's see what benefits we receive from ANARC. I've decided to take my roll as ANARC rep more seriously in 1992. I will report back to you from time to time on the progress that ANARC makes. I'd like to hear comments from the WTFDA membership. How do you feel about our membership in ANARC? Are we paying for something we may not get any benefit from or that we may not need? I want to hear the pros and cons!!

SPRACHMAN'S CORNER

I've been able to join the ranks of the serious TV DX'ers. In September we had a new antenna installed on the roof of the house. Now I get almost everything from Hartford CT to Trenton NJ under the worst conditions. Within a few days of the installation, I was able to increase the number of stations I have received. I added Maine and New Hampshire to my list of states. I plan to start reporting my logs to the Eastern TV DX column. My wife thinks I'm crazy because I am spending more time watching television. There's a lot to watch out there.

I now pick up about 30 channels. Four channels are LPTV's. On channel 53, W53AA New York features programs in Korean, Japanese, and Chinese. W44AI Hicksville and W38AM Long Island City have an eclectic mix of psychics, Haitien programs, Arabic, Iranian and Greek programs and music videos. With W54AY Brownsville (Brooklyn), they call themselves WNYX. Often the programming is different on W38AM with much of its broadcast day made up of psychics charging \$2 a minute on a 900 number. I caught W36AS New Brunswick NJ one night. They have programs for (Asian) Indians. They seem to be on from 8 to 10 pm, Friday to Sunday. The ads are for restaurants and businesses in Northern NJ and Western Queens. I wonder what their actual signal range is? Anyone out there have any info on W36AS?

WPIX-11's translator on channel 17 W17AC has a person doing sign language during the 10 O'Clock news on weeknights. W60Al New York has the Home Shopping Spree. They do ID on the hour, usually with audio and occasionally with a video ID.

I purchased the book "Radio On Wheels" as advertised in the November VUD. It was a little different from what I had imagined. The book lists various stations along each Interstate highway. On top of the page is a map of a segment of the highway. Below is a chart of the stations listed by format, giving frequency, call letters, frequency of newscasts and special programs. The large metropolitan areas are listed in a special section.

Is the book helpful when travelling? I will find out on our next trip. If you take one or

two short trips, or tend to stray away from the interstate highways, or you like small town low power radio stations, use your FM Atlas. My biggest complaints are the author's nearly automatic write-off of AM radio, stations not listed in frequency order, and city of license not being included. Finally, one improvement that the author may want to incorporate in future editions is to indicate at approximately where to start tuning to one set of stations, and where to tune out and try for the next set.

More in the future...

Steven Sprachman

15 Berry Lane Hicksville, NY 11801-6203. Its that time of the month again. Changes still are coming hot and heavy. If I have erred in some items - PLEASE feel free to let me know.

Spacenet 4 is active with several items:

XPDR 6 - ID card

XPDR 18 - Delta Downs usually in MAC

XPDR 20 - LVTN - Las Vegas Television Network

this may be an eventual amalgam of The British

Channel (whatever that is) - Outlaw Music Channel
and others - but has been dark the last few days.

Still a few changes on Cl 11 is now Encore with 1 vacant 4 is a sports channel in VC2 21 has been a full time NHK Tokyo feed from Japan

Many changes ongoing on what was F4 which is now replaced by Anik D2 with reversed polarity from F4 ValueVision is a new shopping service on one of the former Shop-At-Home transponders.

The improved signal is incredible!

G6 has replaced W4

Anik El is on the air and operating and taking the place of D2.

CNN International and the CNN New York feed on Galaxy 2 XPDRs 1 & 5 have disappeared.

The new Intelsat has been positioned at app. 24 west and the satellite formerly there has been moved elsewhere.

Now a note to the FORUM from RONALD PERDUE - Route #1 - Box 224 - Byron, MN 55920

Here is this months news to the Satellite TV news column in the VUD. First, let me put in my 2 cents worth on the current scrambling proliferation on satellite. In five years, I expect to see nearly every channel on satellite scrambled with the exception of Religious channels, Shopping Networks and those so-called 30 minute program length commercial channels (where the consumer is constantly getting ripped-off).

It's December 1st and still no sign of the Sci-Fi Channel. I now have serious doubt that they will ever debut on satellite! Every day I have more than a skeptical feeling that the Sci-Fi Channel is nothing more than a "sham". Why has the Sci-Fi Channel kept on delaying their start-up? Why would the Sci-Fi Channel want to keep their proposed satellite and channel where they are to start up a secret? Every day I turn on the receiver and check up on Satcom 1R or 4, even on to C1, just to see if the Sci-Fi Channel is there, but it's not.

I have written to the <u>Satellite Source</u> and to the <u>National Programming Service</u> about $3\frac{1}{2}$ weeks ago to inquire about programming prices but I have never received a reply! I will write again today and hopefully will hear from them. So - see you in 30 - 73's

That's all from this end - see you in 30.

TeleVision News

Doug Smith, Editor 14 Brookside Court Nashville, TN 37209-4503 (615) 356-8305 CIS 72777,3143 W9WI @ W4HHY.TN

ABBREVIATIONS USED IN THIS COLUMN:

ERP= Effective Radiated Power, in kW

HAAT=Height Above Average Terrain,

in meters nc= No change

TL= Transmitter Location
CP= Construction permit
MP= Modification permit

(modification of construction

permit)

*= Non-commercial

APPLICATIONS TO CHANGE

 St
 Ch
 ERP
 HAAT
 Call
 City

 CA
 29
 16.2
 334
 KZJA
 Eureka

 MS
 51
 1494
 379
 WPJJ
 Jackson

 OH
 43
 204
 264
 WUAB
 Lorain

 (I
 suspect
 this
 ERP
 is
 a

 typo)

OK 44 578 164 KGLB-TV Okmulgee (TL 35*43'25"N, 95*59'20"W) PR 18 500 563 WSJU San Juan SC 43 1020 316 WGSE Myrtle

(Reference says 1.02kW)

TX 22 nc 566 KLTJ Galveston
(TL coordinates not given, but
description is Senior Rd.
tower farm, where most
Houston stations are)

CHANGES GRANTED TO EXISTING STATIONS

St Ch ERP HAAT Call IndianaIN 69 10.5 167 WTBU Indianapolis

(TL 39'50'37"N, 86'10'19"W)

MD 13 215 267 WJZ-TV Baltimore
(TL 39'20'05"N, 76'39'03"W)

MS 29 923 598 WMPN-TV Jackson
(TL 32'12'46"N, 90'22'54"W)

NY 7 316 221 WWNY-TV Carthage
(TL 43'57'12"N, 75'43'43"W)

TN 16 nc 322 WMTU Jackson

CHANGES IN THE TABLE OF

Ch Was
12 Ardmore, OK Sherman, TX
(Requested by KXII-12)

NEW STATIONS ON THE AIR

XHJUB: Ciudad Juarez. Chih.:56: Don't have a lot of details on this one.

KJLF: El Paso, TX: 65: Or on this one either.

FORUM

Anyone know anything about a religious LPTV/translator on channel 6 in Chattanooga? I've heard it twice now on the car radio driving through. Modulation sounds about the same as WUTC-88.1, which makes me think this is a pirate FM station rather than a (legal) LPTV. Will have to remember to bring the pocket TV next time..

Another mystery contributor! "RC", El Paso, TX:

passed along the news of two new locals in his area, shown above. While on the subject of El Paso, I forget whether this was ever cleared up, but KSCE-38 there is definitely a religious station and not PBS.

<u>Bill Nienajadly, Clifton, NJ</u>: sent an AP article from the NYC Daily News;

"Japan began the world's first fullscale high-definition TV broadcasting yesterday; HDTV sets have been on sale for a year here, but only about 200 reportedly have been sold, mostly to businesses."

Apparently HDTV receivers retail for \$35,000, and HDTV VCRs for \$154,000, which probably explains the poor sales! Electronics manufacturers hope to bring the receiver cost down to the vicinity of \$7,500 within 5 years—still kinda steep for my blood..

Japanese promoters of HDTV had seen a \$15.4 billion market in Japan by the year 2000, but now are admitting those were optomistic estimates.

The Japanese HDTV broadcasts are via DBS broadcast satellite.

Matthew Keaper, St. Francis, WI: Wrote asking about reference books to look up DX stations outside his local area.

I've seen frequent references to the WTFDA's North American TV Database; this hasn't been available since I joined about 2 years ago, so I don't have one! (anyone interested in selling one?!)

The reference I use is the Television Factbook. This is published in two volumes & intended for use by TV stations. It's

extremely expensive (I don't know how expensive I got my used copy from a coworker at WISC-TV!) Each commercial TV station gets a page, with channel, network, visual & aural powers, antenna height data, mailing address, and a whole bunch of other information. Also included is a coverage map showing the grade A and B contours. Non-commercial and Canadian stations don't get the coverage maps, but most of the rest of the data is there.

Another good reference is the Broadcasting Yearbook. It's lacking the maps, the print is somewhat smaller, and it seems to be a little less accurate, but if you DX AM and/or FM, it also includes radio stations. This is also extremely expensive— the 1992 issue is \$160!

Obviously, you have to be awfully serious about DXing to spend over \$100 on one of these references! Luckily, there are other ways to get them...

If you know someone at a TV or radio station, you might ask whether they have any old copies they're willing to give away or sell cheap. That's how I got mine..

The Factbook comes in two volumes; one mostly TV stations (the one you want) and the other mostly services, including cable. The volumes are sold as a set. It's quite possible that your local cable system has a copy of the "Stations" volume they have no use for & would be willing to get rid of.

Finally, many public libraries have reasonably recent copies of both of these publications.

FCC RULES PRIMER

is on hold until next month.. the Christmas rush, y'know..

A belated Merry Christmas & Happy New Year to all WTFDA members & their loved ones. Especially to Bill Fahber, whose continuing research is responsible for most of the quality of this column. 1992 promises to be a good year for DXing; hopefully it'll be a good one in your personal lives as well. My first New Years Resolution: to actually make it to the convention this year!

News has been a little (OK, a <u>lot</u>..) slow this month.. Contributions, questions, information, musings, etc. are all always welcome!

73 Doug

(apologies for the ugly logo -couldn't get it photoreduced in time!

STATION BREAK

WTFDA Stationbreak P.O. Box 514 Buffalo, NY 14205-0514

WTFDA member ads only. Items may be edited to conserve space.

FOR SALE - RDX Labs UA-75 UHF balun, 0.1 dB loss, \$19. UA-60 VHF-UHF balun, 0.3 dB loss, \$19. UA-900 UHF amp, built-in balun, 1.0 dB NF, 20 dB gain, \$169. UA-700 VHF high-band amp, built-in balun, ch 7-13 BPF, 1.5 dB NF, 20 dB gain, \$149. All prices FOB KS. For complete data and ordering information, send large SASE. Jim Dietrich - P.0. Box 88 - Derby KS 67037

FOR SALE - RG-11U Commscope cable \$0.30 per foot + UPS; F-11 connectors 2/\$1.50 + UPS; P-5 UHF parabolic dish \$59.95 + UPS; P-7 UHF parabolic UHF dish \$79.95 + UPS; MXU-59 100" corner reflector UHF yagi \$50.00 + UPS. Last call for these Winegard amplifiers: CP-4800 UHF 19 dB gain/2.1 dB noise - \$75.00 + UPS; AC-4990 UHF 21 dB gain/1.2 dB noise - \$95.00 + UPS; CP-3800 VHF 28 dB gain/3.0 dB noise - \$75.00 + UPS. Also any Winegard, Antennacraft, ChannelMaster. Blonder-Tongue equipment. Certified check or money orders only. Rich Wertman - 6150 Crosby Road - Lockport NY 14094 (716) 433-0805

YOUR non-commercial ad can appear in the VUD free of charge! Got a piece of DX gear you'd like to sell? Looking for something? Advertise in STATION BREAK. This feature appears on a space available basis. WTFDA and the YHF-UHF DIGEST assume no responsibility for any claims made by advertisers--our trust is implicit, as fellow DXers.



Bruce F. Elving, Ph.D., Editor Box 336 Esko MN 55733-0336, U.S.A.

Contributions earnestly solicited!

Readers' Reports

Bob Baker sent a long review of the Day-Sequerra FM reference tuner published in the Dec. '91 "Stereophile." The thing that sets this review apart from others is that the author, Larry Greenhill, is a ham. He mentions using the tuner for DXing and he does some side-by-side comparing of it to such tuners as the Magnum/Dynalab "Etude." Both seemed to perform about the same, incidentally, but the Etude is much less expensive: the Day-Sequerra lists at \$4800, or \$12,800 with an optional "FM Reference Panalyzer," which I gather is an oscilloscope-type display. Bob emphasized in the article that "connectors and coaxial cables in any home tuner installation [should be] in superb shape. Poor antenna feeds can completely defeat a powerful rooftop antenna and a top FM tuner with a supersensitive RF section." The review failed to mention how immune that tuner might be to overload from strong local stations, but it did credit the "FM Atlas" as "handy" for showing the stations.

Bill Nienajadly sent word that WZZV 95.7 Olyphant PA is on the air, op, but not known if stereo. Similarly, WDNO 95.3 Laurel DE is on with stereo and "varied lame format." Lame "denotes soft rock/AC stations with overplayed selections and poor presentations, I personally have not been using that term for a while, but others are using it more and more. I'm off the hook on that one! . . . What is your opinion of the 110 kHz filters?" [So far I have only tried one in a G-E Superadio, and could not tell if there was improvement or not: stations are not as close to each other here in the Midwest as they are in the N.E.-b.e.] Andy Bolin sent Bill a seven-page write-up on his phase box, which he sells for \$145. "I must say that price seems kind of expensive, but he does have a money back guarantee on it, so I just might go for it." A teenager in Trenton NJ reports being bothered by radio playing through his braces; Bill speculates it might be WKXW 101.5. Other questions about stations having stereo or not-WRAV 94.5 Ravena NY, WKBE 100.5 Warrensburg NY, WTTH 96.1 Margate City NJ? Gerry Turro's Pomona NY 94.3 translator now has WBAB 102.3 Babylon NY, no longer Z-100. Rich Shafton visited Bill and had 110 kHz filters installed in his JVC receiver, GE Superadio and Pioneer Supertuner III car radio. "He didn't notice any deterioration of sound quality and overall selectivity is much better. . . He had 150s in all the units before. He said he had the Philly adjacents driving in the Bronx!"

WRJT Monterey TN now on 106.9, reports Doug Smith, and he says WUTC *88.1 Chattanooga does some of its own programming-not always relaying in stereo the signal of WUOT *91.9 Knoxville. He tried but failed to log Bahamas 104.5 on a recent trip because of FL stations on 104.3 and 104.7. "Heard KA2XXE 107.9 Columbia. Mono, pretty good signal for a considerable stretch of I-75. Columbia isn't on most maps; I thought it was down by Orlando, but your map in the Atlas showed it wasn't as good DX as I thought!

Harry Helms says he doubts there will be a fourth edition of the book he has done with Hank Bennett. "The Complete Shortwave Listener's Handbook." I wrote him because I wanted my chapter revised if a new edition should be published. "Congratulations on the success of your 'FM Atlas'! Much deserved!" he writes.

Bruce Hall: "Pleasure to meet you for the first time at Dunkirk for the convention. Have enjoyed my little Cool Cube radio with SCS, I use it at work while at my desk. My car radio is certainly a lot sharper after Bill Nienajadly transplanted the 150 filter, although I primarily DX at home." He sent an article on a tourist attraction in Brantford ON, Icomm, which is on a fundraiser to furnish and equip with interactive displaysa "science centre, demonstrating the impact of communications and information technology on our daily lives."

Now, until I get a chance to analyze more data that have poured in, this is it until next month. Look below for "See Also," culled from December's VUD.

See Also December VUD For

IN Austin WJAA 96.3 Stereo, ID with Seymour, Strobel, p. 13

NY Alfred WETD *90.9 now Stereo; s, Nieman, p. 12 NY Buffalo WGRF 96.9 still "Rock 97," but I list "97 Rock" (not "Rock

97'') as the nonID for WRRK Braddock PA, "Station News," p. 10 WUFX 103.3 rp, "Station News," p. 11

NY Loudonville WVCR *88.3 \$tereo (back to; was mono for a long time), p,

OH Ada WONB *94.9 \$, op, "Rock 95," Strobel, p. 13 OK Moore KMSI *88.1 ID with Oklahoma City, Buntin, p. 15; also it has

\$[tereo] TX Robstown KLUX *89.5 list as b, Strobel, p. 13

TV character generators for identifying translators (p. 27, Smith). I'd like to find out how a DXer might acquire the decoder to tune in those elusive IDs; I understand some FM translators are also thusly identified. Any hints about building or buying such units to sleuth out the translator IDs?

Format Changes

Formats are the same as in the "FM Atlas"

AL Northport WLXY 100.7 rm

AL Ozark WQLS 103.9 rm AR Mountain Home KKTZ 107.5 o

AR Stamps KZHE 100.5 k, getting an extension

of time to move from 100.1

AR Walnut Ridge KRLW-FM 106.3 k

CA Fresno KSKS 93.7 k, "Kiss Country"

CA Imperial KBCD 99.3 Spanish, I

CA Mendocino KMFB 92.7 o

CA Ontario KRZE-FM 93.5 e. loses stereo. parallel to KFOX 93.5 Redondo Beach

CA San Luis Obispo KZOZ 93.3 p, but the market "might be considered the lame radio capital of the West. Stations at 98.1, 99.7, 101.3 and 107.3 fall into this category.

CA Tracy KSGO 100.9 o CO Castle Rock KYBG-FM 92.1nt, news/sports,/

CO Snowmass Village KSNO-FM 103.9 r, same as on KKYY 98.3 Gunnison and KIDN-FM 95.9

Hayden

FL Key West WKRY 93.5 rp FL Ocala VMFQ 92.9 mr

FL Pompano Beach WMXJ 102.7 o FL Starke WEAG-FM 106.3 'm GA Cairo WSLE 102.3 rm, "Whistle" GA Dock Junction WXMK 105.9 r, CHR

GA Hinesville WSKX 92.3 s, \$, "92 Jams" (from

"92 Kicks")

GA Macon WAYS 99.1 o, still "99 Ways"

GA Springfield WQQT 103.9 k

HI Honclulu KHFX 105.1 o, entering a time sales LMA with KQMQ-FM 93.1 and AM and KPOI 97.5, under the umbrella, "Radio Marketing Associates" ID Caldwell KBXL 94.1 mr, "X-94" ID New Plymouth KZMG 93.1 r, still "Magic 93"

ID Payette KQXR 100.3 r, "Power 100" (from

"U-100")
II. Harrisburg WOOZ 99.9 o, ID with Carbondele
IN Austin WJAA 96.3 r
IN Indianapolis WHHH 96.3 r, "Hoosier Hot 96"
IN Renssal aer WL Q1 97.7 r, "Q-98"
KS Baxter Springs KMOQ 107.1 o, "Oldies 107,"
ID with Pittburg
KY Greenville WWHK 105.5 rp KY Irvine WCYO 106.1 I KY Vanceburg WKKS-FM 104.9 k

KY Wickliffe WGKY 95.9 op, SMN classic rock LA New Orleans WRNO-FM 99.5 still p, but dropping Z-Rock days. "Perhaps the arrival of WZRH 106.1 has something to do with the change. I've been told by someone who claims to know the owner personally that WRNO-FM has been up for sale (so has the

short wave)." ME Dexter WGUY 102.1 o

ME Madison WHAA 97.5 o MD Federalsburg WQMR 107.1 r, "Power 107" MA Harwich Port WFXR 93.5 rm

MA Hyannis WCOD 106.1 rm, "Gold/AC"

MA West Yarmouth WXTK nt, monophonic, remove \$ listing
MI Cadillac WCKC 107.1 k, "KC Country," ID. with Traverse City. Programmed and identified with WMKC 102.9 St. Ignace MI.

MI Hart WCXT 105.3 rm

MI Tuscola WGMZ 101.7 k, local marketin agreement (LMA) with, WKMF 1470 AM

MN Fergus Falls K.JJK-FM 96.5 rm MN Grand Rapids KMFY 96.9 rm MN Park Rapids KDKK 97.5 o, uses calls, not StarStation 97%

MN Thief River Falls KSRQ *90.1 rp MS Ellisville WJKX 102.5 o, joint programming

with WKNZ 101.7 Collins MO Savannah KSJQ 92.7 k

MO Warrenton KFAV 99.9 r, "V-100"

MT Livingston KYBS 97.5 k NE Lincoln KFMQ-FM 101.9 rp. KLMS AM 1480 now KFMQ (AM) and simulcasting. KMXA 106.3 b, \$, "The New Mix 106." For "a day and a half 'The Blaze' with heavy metal,

then b. What a surprise!" NE McCook KZMC 105.3 rp

NE York KTMX 104.9 rm NH Lisbon WLTN-FM 96.7 o

NM Alamogordo KZZX 105.3 k, moving from 105.5

NM Hobbs KZOR 94.1 rm

NM Los Lunas KZPY 106.3 kr NY Cobleskill WSHQ 103.5 rm

NY Dansville WACZ 93.9 rm

NY Hudson Falls WENU 101.7 mr

NY New Rochelle WRTN 93.5 mp, with "heavy metal "Saturday nights and Sunday mornings; also Spanish late weekend nights NY Peru WXLU *88.3 cn, \$

NC Clinton WMXS 107.1 sr

NC Goldsboro WEQR 102.3 rm NC Louisburg WHLQ 102.5 k

ND Fargo KFGO-FM 101.9 k, "New Country 102" (strict), with official ID at :55 ("Magic

102" rubbed out)

OH Bowling Green WRQN 93.5 o, "Oldies 93.5" OH Canton WHBC-FM 94.1 o

OH Columbus WBNS-FM 97.1 o, "Oldies 97.1"

OH Geneva WDON 104.9 o OH Oberlin WOBC *91.5 rp

OK Oklahoma City KKNG 92.5 rm OK Weatherford KWEYk-FM 97.3 k, "Y-97"

OR Hermiston KQFM 99.3 rm OR Hood River KCGB 105.5 r, SMN PA Danville WPGM-FM *96.7 g, not gr PA Harrisburg WIMX-FM 99.3 o, now simulcast by AM

PA Jersey Shore WRKK 97.7 op, no "Hot FM," now saying "Rock 97-7" with calls

PA Lancaster WNCE 101.3 mr

PA Millersville WIXQ *91.7 p, \$, but temporarily off the air due to Student Center renovations. It "was cheated out of a large chunk of its eastern York and northern Lancaster County listenership. The station that caused this interference: WJAZ *91.7 Summerdale/ Harrisburg. I find it hard to believe WJAZ is operating with only 250 watts. Their signal is incredible! I could get them in my car as far away as Shippensburg to the west. And when WIXO is off the air I could get them fairly strong in the parking lot of the Student Center at Millersville University. . . It seems ludicrous why someone chose to put those stations on these frequencies. . . Were these stations victims of bad frequency searches or is there something here I don't understand?" [Also mentioned: WDCV *88.3 Carlisle being cheated out of its Harrisburg area listeners because of WWEC *88.3 Elizabethtown.]

PA Renovo WMHU 93.1 r, "WKHL," but now

PA Salladasburg WKHL-FM 95.5 (and AM 1190 in Hughesville) most recently r, and dropping "Kool Radio," but now silent. "Radio must be in a parlous state in our area."

PA Starview WHTF 92.7 op, ID with York-Lancaster (not with Harrisburg), "Starview 92.7"

SC Moncks Corner WJYQ 105.5 rm, "My 105" (loses "Joy 105.5 FM")

SD Redfield KQKD-FM 103.7 kr. \$ TN Centerville WN KX-FM 96.7 k, "Kicks 96.7"

TN Memphis WYPL *89.3 t, reading to the blind, fulltime, main carrier, no SCS. This station replaces WLYX which deletes. WYPL plans stereo, but it may be pseudo-stereo, since no music is broadcast.

TX Corpus Christi KMXR 93.9 r TX Edinburg KBFM 104.1 rs, "Hot B-104"

(from "B-104") TX Kilgore KKTX-FM 96.1 op

TX Killeen KBTS 93.3 sr, "B-93 Jamz"
TX Lubbock KKIK 93.7 g, LMA with noncom-

mercial KAMY *90.1 TX Mount Pleasant KPXI 100.7 k, "K-100"

(from "X-101"). "Sixth format this year (AC, AOR, top 40-rock, top 40, AC, country!)" [still "Ma [still "Magic 105"

TX Robstown KMIQ 105.1 sr, no Spanish,/ TX San Antonio KISS-FM 99.5 and AM still o, but entering an LMA with KSMG 105.3, "Magic 105," o, Seguin-San Antonio. Look for a common positioning statement to emerge. [uses calls, "KXOX 96,7" TX Sweetwater KXOX-FM 96.7 o, SMN Kool,/

VA Farmville WFLO-FM 95.7 rm VA Harrisonburg WMRA *90.7 cj

VA Radford WRIQ 101.7 k, "Q-102" VA Rural Retreat WCRR-FM 95.3 rm VA Suffolk WFOG 92.9 mr

WA Everett KSER *90.7 pt, "al ways stereo. . . was only mono once or twice while getting

the bugs out of their new transmitter. WA Seattle KNDD 107.7 rp, "107.7 The End" (strict). "Just the station Seattle's been waiting for. It's different from any other station. I'm sure glad they dropped their AC

format, as there are too many in Seattle."
WV Milton WAEZ 106.3 o, SMN Pure
WI Green Bay WPNE-FM *89.3 cj, \$ WGBW *91.5 tj

WI Menomonie WVSS *90.7 cj, \$

WI Plymouth WXER 104.5 rm, "Extra EZ Rock" [98, WAQE," no "S [98, WAQE," no "98-Q" WI Rice Lake WAQE 97.7rm, uses calls, "Great/

WI Watertown W.J.O 94.1 rp, "New tower, Deerfield WI, basically calls itself a Madison station-ignoring Watertown."

On Air (Selected)

I.A.Jennings K.JEF-FM 92.9 C2, from 92.7A MI Bloomfield Hills WBFH *88.1, now on with 360 h.v; 55 m. d-a, "with decent stereo"

Off Air-Or Not Yet On

CA Grover City KWCD 107.3 FL Beverly Hills WPDS 97.1

FL Newberry WNFQ 100.5 GA Omega WQBX 107.5

IL Kankakee WTKC *91.1 IN Bloomfield WBHQ 101.1

IN Clinton WPNL *93.9 IN Elletsville WZYG 105.1

IN Knox WUVX *89.3 IN Salem WDHM 97.9

IN West Lafayette WBAA-FM 101.3

IN Winamac WOTD 100.1 LA Folsom KGZC 104.9 MI Novi WOVI *89.5

MI Oak Park WOPR *90.3 OH Lorain WNZN *89,1

PA McConnelsburg WEMX 103.7 PA Sharpsville WAXF 95.9 TN Manchester WFTZ 101.5

[to 94.9 TX Canadian KRBG 103.1, preparing to move/ VA Culeper WPVB *89.9

VA Hot Springs WBHA 107.1 VA Waynesboro WPVA *90.1

WV Phillipi WQAB *91.3 WV Pocatalico WTUN 98.7

WV White Sulphur Springs WXMD 93.3 WI Brillion WEZR 107.5

WI Brookfield WRIT 106.9 WI Lomira WFDL 106.7

WI Mayville WMVM 98.7 WI Mishicot WTRW-FM 94.7 WI New Holstein KFKQ 93.1 WI Tomah WBOG 96,1

Deletions

AL Huntsville W292CD 106.3, per station [WLXY 100.7 Northport AL TuscaloosaW261AD 100.1, because of new/

AK Bethel KBTB 98.3 AR Marianna KVNZ 106.9, an unbuilt CP

GA Sparta WHAN 102.7, an unbuilt CP IL Oregon WLFW 106.1, CP forfeited KS Downs KWNL 94.1

MI Hancock WTHV 98.7, CP forfeited MN Roseau KRMB 102.1, CP forfeited ND Wishek KMVC 100.3, CP forfeited

OK Lahoma KGPD 95.7, an unbuilt CP PA Camp Hill W285AF 104.9-was once licensed

PA Carlisle W220AH *91.9, displaced by WJAZ

PA Harrisburg W211AA *90.1
PA Millersburg W215AA *90.9
TN Memphis WLYX *89.3—equipment given to WYPL 89.3

UT Richfield KYAY 97.5 VA Lawrenceville WHFD *91.7 WI Sturtevant WZXA 104.7 PQ Kawachikamach CFNM 89.3

"I'll be traveling soon and send you any info I hear along the way. Love the Atlas and FMedial"

SCServices, 67, 92, 102.271 kHz Symbols are as in the "FM Atlas"

AR Conway KMJX 105.1 no 1Y, 92 CA Pasadena KPCC *89.3 †E, 67, RSI, Radio Sedaye Iran; Filipino 92 CA San Diego KSDS *88.3 no tY, 92

KCBQ-FM 105.3 †E, 67, Farsi (RSI) CA San Francisco: "We are on SCS [KALW

*91.7], but would like to buy an FM station. What do they cost? . . . With FM stations so expensive, what about AM?" I suggested he consider running an AM station along with an existing SCS. That way, current listeners wouldn't be alienated and the SCS could fill in coverage gaps if a lower-powered AM were acquired, which might go directional or reduce power at night.]

JR.

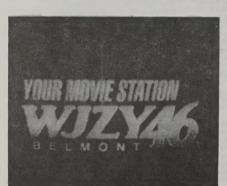
MAILING ADDRESS: PHOTO-NEWS 12284 NICE ROAD AKRON NY 14001-9529

Bill Nienajadly - Clifton, New Jersey is are first reporter for 1992. Bill sent in a foto of his DX set-up. From top to bottom; on left is his Winegard AC-4990 power supply. next to that is a Radio Shack rotor control. Next is a Teknika TVC22 TV tuner. Below that a Fanon PRO 120 public address audio amp for his Pioneer TX-9800 FM tuner Bill modified with (2) 180khz & (3) 150khz IF filters. For recording his TV DX he has a Emerson VCR model 765. All this is setting on a Samsung color TV; on screen is "channel 22 from Annapolis MD under normal troposcatter conditions at 189 miles! My farthest viewable TV station under near dead conditions!" Not seen; Radio Shack U-120 UHF antenna and one of their 6 element FM antennae + 10db postamp.



Just a short drive down the Garden State Parkway is Joe Fela's South Plainfield, NJ home, yes the one with the Antennacraft P-7 dish & Winegard PA-4975 preamp on the roof. That must be Joe at the controls of his G.E. color monitor. As he goes thru the channels we can see:

WCNC-36
Charlotte North Carolina
516 mile tropo
seen August 26 1991
at 0558 EDT



WJZY-46 Belmont North Carolina 515 mile tropo seen August 26 1991 at 0559 EDT





WENY-36 Elmira New York 157 mile tropo seen August 27 1991

"not long, but this one doesn't make it down here too often via true tropo"

EASTERN TV-DX

Bill Nienajadly PO Box 2999 Clifton NJ 07015-2999 1-201-478-3044

JANUARY 1992 deadline 2/5/92 3 Month log cutoff Happy Nue Yeer everyone! Lets look forward to 1992 with hope of much DX and other goodies. In the meantime, this column is still dealing with 1991 and there is DX to report out there ...where? How about December E-skip! As Im typing up this column on 12/6/91 I have heard about super bang up opening late November & on Dec lst. Hopefully we'll get some reports on those dates which I heard happened in the South with a MUF at 108+. In the Northeast there was one opening on Dec 2nd with a MUF of ch 6+. Rich Shaftan of NJ logged ch 2 Denton TX on 12/2. Jeff Falconer Box 63 Clinton ON NOM 1LØ Icom R7000, 25 el log periodic @ 25 ft with rotor ALL TROPO LOGGINGS 8/25 0428 WBNS 10 0H 263 8/25 0521 WGN 9 IL 333 11/17 1200 WXIN 59 IN 353 11/17 1230 WHMB 40 IN 353 0429 WEHS 60 IL 334 8/30 0116 WANE 15 IN 256 1201 WHME 46 IN 275 OVER Local CBLN 0433 W/TV 18 WI 324 8/31 0211 W15AM MI 214 1203 WGBA 26 WI 327 1231 WSJV 28 IN 276 0436 WHME 46 IN 275 // to WHE-46 1223 WFWA 39 IN 256 1254 WLFI 18 IN 344. 0452 WHMB 40 IN 353 0213 WTV 18 WI 324 1225 WPTA 21 IN 256 1258 WOSU 34 OH 249 0457 CIII-27 ON 166 0215 WNDU 16 IN 277 1229 WANE 15 IN 256 1300 WFYI 20 IN 352 0501 WKOI 43 IN 326 0225 WDJT 58 WI 324 An above average Tr opening for November and that's been it. Only one new TV logging via ES this season! 73, Jeff Ed Phelps Rt 2 Box 266 Benton KY ALL TROPO LOGGINGS (Phoned into ETVDX-BN) 11/22 WAIQ 26 AL 330 WBIQ 10 AL 248 WCIQ 7 AL 273 WGIQ 43 AL 390 WALB 10 GA 458- all in evening via tropo Also Atlanta, Huntsville, Birmingham Total Stations 444 D 2 WCRS (Editor corrections, WPSD is on ch 6 not channel FIME, as I stated last month. Sorry about that -BN) Tom Bryant 849 Todd Preis Dr Nashville TN 37221 ALL TROPO IN NOVEMBER 1991 13 0026 WCIU 26 IL 405 13 0030 WYCC 20 IL 407 14 WBRC x1tr Anniston 22 2354 WHOA 32 AL 255 WFLD 32 IL 407 0041 WPWR 50 IL 405 22 1841 WIIQ 41 AL 259 23 0101 WCOV 20 AL 257 0027 WSNS 44 IL 407 14 0059 W29AD AL 173 2322 WXXV 25 MS 385 23 0133 WELF 23 GA 155 TENT The only relogs are stuff that I don't normally get: for example, the 3 repeats from Chicago on 11/13. That was an unusual duct with no other IL, WI, or Northern IN activity. At the same time, almost all Northern AL, MS and GA reg -ulars were good to s/f. (Selective ducting-BN). The new P-5 parabolic continues to turn in exceptional performance. Hope 1992 is a Happy DX New Year for all WTFDA'ers! Tom (Tom did a great job with the WTFDA Convention Video tape-BN) Jeff Wolf 1131 University Blvd. W Apt 701 Silver Spring MD 20902 Dayton 12" B & W , UHF- Radio Shack 4 Bay, twin lead bowtie, 15-1104 VHF UHF amp (used for UHF only) VHF: Radio Shack rabbit ears 15-235 all directions/ VHF channels, Building's VHF antenna North East direction only, for channels 2,3,4,5,8,9,10,11,13 Eric Voytko wrote that the UNID-2 I saw on 8/11/91 could possibly be KTVI. Thanks Eric, 8/1 Tr 2010 WSET 13 VA 10/1 Tr 1946 CCI 0/W60 8/7 0810 to 0929 SC 19 8/5 Tr 0751 WQEX 16 PA Charlotte 18,36,46 10/19 Tr 0208 NC 16-s/off 10/25 Tr 0559 New calls . Tr 0028 W48AA WV 0238 NC 28-s/off Tr 1000 WJPR 21 VA was WPTF now 0117-0300 NC 16 8/15 Tr 1016+WQEX 16 NC 0300 NC 40-s/off it is WRDC 8/17 OR 0659 RI 64 ? WYED-17,22,40, 13+ 0327 NC 40 3/4 cb 11/6 ES 2200 KJRH 2 0K VA WSET-13,29 WLIG 55, NC 45 0613 WPDE 15 SC MJF 3 GW 0743 WDCA 20 off NYC 41, CT 53?, 30 0828 W40AH VA 11/8 AU 1840-1930 ch 2 cci until 1905 8/22 Tr 0949 UNID 17z (ACTS) 11/21 ES 2208 2+,z Tr 0746 SC 15 gd-vgd 10/1 GW 1905 WYVN 60 WV 0916 WUNJ 39 NC 11/29 ES 1920 2z, -+ Martinsburg Fox 1st day NC 11,22 10/24 Tr0538 WPDE 15 SC 12/2 ES 1800 KOET 3 OK 0800 UNID 20 on the air 10/25 Tr 0559 WRDC 28 NC KFDX 3 TX 1830 KBTX 3 TX William R. Hepburn 35 Lockwood Rd Brampton ON L6Y 417 -JVC HR-D630U VCR w/indoor VHF dipole & UHF 4-bay ALL TROPO LOGGINGS Oct 91 Nov 91 17 2347 CKCO4 11 ON 119 18 0040 WXMI 17 MI 295 18 2315 CBOT5 33 ON 148 17 2228 WCMU 14 MI 250 McArthur Mills Grand Rapids Mt Pleasent Muskoka-Haliburton w/CBC Ottawa s/off 0203 2236 WSMH 66 MT 205 video only u/CHCH

Dude from Joisey PO Box 2999 Clifton NJ 07015-2999

28 2334 MADU 16 IN 355 \$

12/2 ES 1800 MUF FM?...12/8 ES MUF 4 @ 1700, 12/9 ES 1700 MUF 2 weak! gone by 1745, 12/12 Trops to the South 200 mi.

//CKCO 13

Flint-Saginaw

Bay City s/off 0105

1000 CJOH 13(PO) 225

Ottawa ON-Hull u/CKCO

Fred McCormack Box 17860 St. Paul MN 55117-7860

Deadline: 02-06-92 Cut-off: 11-01-91

November produced an unusual amount of E skip as well as F2. E skip was reported on November 5, 7, 9, 10, 22, 24, 28, 29 and 30. F2 was reported on October 29 and November 8, 9, and 19 by Dyer. Some nice tropo was also caught, particularly by

CORRECTION TO LAST MONTH'S CORRECTIONS - This distance from Bill Draeb's house to CHSJ-4 is 1067 miles, not 1230 miles or 1350 miles. I hope I got it right this time!

New Mode_ _ Tent. - t Unidentified - unid S/On - + S/off - = ID Color Bars - @ Unid Color Bars - % Misc. Test Patterns - & Parallel Programming - // MTS Stereo - \$

(414-388-2350) William Draeb, Ellis St., Rt. #2, Kewaunee WI 54216

CST

Local WPNE-38 was off the air from November 9-14. I talked to someone who works for the station, part time, at UWGB and he said the "transmission line fried." About 800' of transmission line (from the transmitter to the 800' level) had to be replaced.

Novemb	er 19	91			17	tr	0230	WYTV	33 OH	420	22 tr	1828	WDKY 56 KY 480
13 tr	1730	KXLI	41 MN	310			0545	WNEO	45 OH	405			(See Note # 3)
		(HSC)						WEAO	49 OH	380			WMSY 52 VA 605
		KSAX	42 MN	374			0554	WFMJ	21 OH	420			WKYT 27 KY 473
		W48	48 ??					WPGH	53 PA	480			WLEX 18 KY 473
		(// WI	HWC-28))			0724	Cinci	nnati l	Js400		1840	WYTV 33 OH 420
	2122	Iron I	Mtn Us	100			0725	WKON	52 KY	437			WKBN 27 OH 420
		Lac di	u Flamb	peau				WDRB	41(IN)	437		1841	WQEXt 16 PA
			Us	155			0908	WKRC	12 OH	400			WPTTt 22 PA
16 tr	1741	KXLI	41 MN	310			1632	CBLN	40 ON	325			WDRB 41(IN) 437
		KSAX	42 MN	385					8 18 Of				WPBO 42 OH 461
		KRWF	43 MN	395				CBLFT	9 53 0			1848	WWATt 53 OH
2	1751	KVRR	15 (MN	450				WKBN	27 OH	420			WPGHt 53 PA
		K58BS	58 MN	285					9 29 0				CBLFT9 53 ON 325
	(Minn	eapoli:	S	TBN)					. CCI-V			i	WFLIt 53 TN
	1945	Centr	al IL I	Js			1729	WUHQ	41 MI	165			CBLN 40 ON 325
		(Snow	free)						WOTV I				CBLN4 45 ON 307
		WEIU	51 IL	345	19	tr	2032	KXLI	41 MN	310			CBLFT17 68 ON265
		KAWB	22 MN	365				KSAX	42 MN	385			CITY2 31 ON 350
		W57AR	57 WI	145	21	tr	1955		40 MI	110			WJET 24 PA 405
	(Sayn			W- 7)			(Musk			CHA)			CICO18t 18 ON
		W45AJ	45 IL						Note !				WNED 17 NY 445
	(Rock			CHA)	22	tr	1828	WSBN	47 VA	580			WOSU 34 OH 395
	2035	WKEF	22 OH	365					Note !			1916	WHME 46 IN 210
			r WSBT					WEMT	39 TN	635			(See Note # 4)
		WCET	48 OH	400					free)				WKPT 19 TN 620
		WKON	52 KY	437				WIII	64 OH	400		1923	WSFJ 51 OH 395
		WIII	64 OH	400					25 OH	400			unid channel 51
	,	WCVN	54 KY	407			(Cinc	cinnati		CHA)			(See Note # 5)
	2115	WTVQ	36 KY	473				WCET	48 OH	400		1930	WGGN 52 OH 315
		WKLE	46 KY	473				WCVN	54 KY	407		2023	WKLE 46 KY 473
		WXIX	19(OH					WKON	52 KY	437		2103	WGRBt 34 KY
		KVRR	15(MN) 500				WNEO	45 OH	405		4000	(See Note # 6)
			nger)					WTVQ	36 KY	473	24 E	s 1900	WPBTt 2 FL
		KAWB	22 MN					WYMT	57 KY	550			WTVJt 4 FL
			B-KAWE					WKSO	29 KY	520			WEDU 3 FL 1192
	2150		17,23,					WKHA	35 KY	550			unid channel 5
		(Not	in ear	lier)									

Note # 1 - Live "TV BINGO"; station off frequency slightly. Had to adjust horizontal hold to lock in picture.

Note # 2 - "Blue Ridge Public Television" - snow free - ID slide with WBRA-15, WSBN-47, WMSY-52.

Note # 3 - No sign of WYIN-56 or WJYS-62.

Note # 4 - Carrying WNDU-16 weather delayed about one half hour.

Note # 5 - Same direction as WSFJ; zero offset to WSFJ. Note # 6 - Rain getting heavier; DX falling: mostly gone at 2230.

John Ebeling, 6843 County Road 47, Alborn MN 55702 (218-345-6718)

CDT/CST

Equipment:

General Electric 19EC0740W (1980) - electronic tuning (no fine tuning). Antennas in the attic - one pointed south towards Minneapolis/St. Paul and the other almed southeast towards Duluth - selection via knife switch. antenna is a DX type.

September 1991

1 Es 0003 CFCN 4 AB 1010 unids chs 2-6 CKKX 2 AB 1015

2 Es 0100 CKKX 8 Es 0830 unid channel 2

2 AB 1015 November 1991

(In until 0135) 29 Es 1800 unids chs 2-3 KPRC 2 TX 1215

Pat Dyer, 5315 Silvertip Drive, San Antonio TX 78228-2744

CST

KTV 12' 1210A b&w, Archer V-100 and 8-hay bow-tie UHF array at 20 feet with rotor.

October 1991	November 1991	9 Es 1949 XHBC 3 BN 1025
1 Es 1958 WSAV 3 GA 1040	5 Es 1458 WSAZ 3 WV 1125	2059 KUTV 2 UT 1085
2036 WWAY 3 NC 1235	1600 WSJK 2 TN 1010	2154 KVBC 3 NV 1050
14 tr 0729 KADN 15 LA 385	1616 WBTV 3 NC 1090	2155 KTVK 3 AZ 835
0755 K21DM 21 LA 395	WFMY 2 NC 1175	19 F2 0925-1054 unids ch 2
(Lafayette VJN)	7 Es 0928 KDLO 3 SD 1070	1110-1122 unids ch 2
0759 WLPB 27 LA 445	0929 KUSD 2 SD 945	1635-1700 unids ch 2
18 tr 0004 KLAX 31 LA 385	8 F2 1849-2020 unids ch 2	
0102 KBMT 12 TX 285	2315-0000 unids ch 2	
0959 WVLA 33 LA 440	9 F2 0000-0045 unids ch 2	
20 Es 1128 WCBD 2 SC 1140	Es 0230 WPBT 2 FL 1150	1000 1101 1 100 1200
1159 WWAY 3 NC 1235	1557 KOTA 3 SD 1040	1000
29 F2 0834-0942 unids ch 2	1651 KTWO 2 WY 1010	1825 WCIA 3 IL 930
1716-1833 unids ch 2	1700 KXMA 2 ND 1215	
	1100 IVANA 2 NO 1213	

A fair amount of E skip in October-November. K21DM had a jukebox format - and lucky to get with Iccal 20 LPTV and other channel 23.

The big news was, of course, the F2 events. Many minutes of these were caught with the VCR. A 4-head machine and some video processing software might be able to extract a lot more.

The November 8-9 events were due to the severe magnetic storm. The two later episodes there had "pulsing" effects, perhaps indicating some TE involvement.

73, Pat, WA5IYX

Dave Sinclair, 6565 Brooks Street, Vancouver BC V5S 3J6

PDT/PST

Equipment:

Archer antennas: VHF-FM model 15-8654 on Channel Master Crown rotor 5 feet above roof. UHF model U-120 10 feet above roof. Archer amplifier model 15-1113, adj. 10-20 dB. Both mounted on separate chimneys (straps). Electrohome VCR VHS, Sony colour TV model FV1215, Philips converter model CT3600 which has separate inputs for cable, VHF and UHF, stereo.

October 1991	14 tr 0200 KBSP 22 OR 288	November 1991
9 Es 2130 \$KVBC 3 NV 996	(KTZZ-22 off)	8 tr 1500 K47 47 WA
10 tr 2100 K68DL 68 WA 111	19 tr 0300 \$KATU 2 OR 252	(Unknown KOMO- 4)
(Seattle TAB)	(CBUT- 2 off)	10 Es 0715 \$KVBC 3 NV 996
K53AZ 53 WA 185	20 tr 0400 KATU 2 OR 252	28 tr 1700 LPDX 4S OR 252
(Centralia KIRO- 7)		: ae Note)

Note - Received with Knowledge Network rebroadcaster off air due to storm.

Channel three received over CBUT-2 rebroadcaster at Chilliwack, British Columbia, 56 miles east, 590 Watts erp. This rebroadcaster stays on all night with a colour bar and is fed by CBC North.

Best wishes for 1992 to all!

RTHERN FM-DX

GREG CONIGLIO 5100 GLENWOOD DRIVE WILLIAMSVILLE, NY 14221

For D Xers in: MANH, VT.CT.MARI NY PANJOH MI, INJL, WI, MN, IANESD ND, MT, WY, ID, WA, OR, AK, Canada ➤ DEADLINE: The 5th → LOG CUTOFF: 2 months from when mailed

Not much to report this time, not much trop, though there was some surprise e-skip early in November, and there has been plenty of aurora. Let's hear from you! One note: The CCI-Unids column is now done by Matt Sittel. Please send your unIDs to his column instead of here. I am glad to see that column back, I know many enjoy that column. Happy New Year!!

991 E-skip report.

The top 20 e-skip openings in 1991 *note: The late season opening in November is not included. Reports taken from Northern and Southern EMIDY

		neports taken	Hour Mormeth Shi	d Southern LM DV		
DATE	TOTAL	rep	avg	MUF	<u>high</u>	
1.JULY 1	491	28	17.54	144	64	
2.JULY 19	442	27	16.37	209	43	
3.MAY 29	272	29	9.38	107.9	30	
4.JUNE 3	159	7	22.71	108.5	52	
5.JULY 30	144	12	12.00	107.7	38	
6.JULY 8	143	10	14.30	107.9	38	
7.JULY 18	142	16	8.88	144	36	
8.JULY 31	122	11	11.09	107.9	32	
9.JUNE 29	116	15	7.73	106.1	20	
10.AUGUST 2	3 113	9	12.56	107.9	26	
11.JULY 20	111	16	6.94	107.5	25	
12.JULY 2	100	13	7.69	107.5	24	
13.MAY 19	93	5	18.60	108.3	42	
14.JUNE 12	78	5	15.60	105.9	25	
15.JUNE 30	66	11	6.00	103.3	13	
16.JUNE 20	63	9	7.00	105.5	13 ′	
17.JUNE 8	60	14	4.29	107.7	28	
18.MAY 20	37	4	9.25	107.3	20	
19.JUNE 16	37	9	4.11	107.3	8	
20.JULY 22	33	10	3.30	97.1	8	
TOTAL (60 da	vs) 3298	avg of 54	1.97 reports per sk	ip opening, average	e MUF: 106.0 M	lha

Kev:

total = total number of loggings reported that day

rep = number of DXers reporting noting skip that day

avg = average number of loggings per DXer that day (total ÷ rep)

MUF = maximum useable frequency reported that day

high = most loggings reported by a single reporter that day

Breakdown by month:

	no of days	total for month	avq
JULY	18	1828	101.56
MAY	9	483	53.67
JUNE 1	22	782	35.55
AUGUST	8	199	24.88
SEPTEMBER	3	6	2.00

(There have been some October and November openings not counted here)

DI GUNGOTTII OI IVIOI O	L .	
	no, openings	percent reaching this level
up to 108.0 +	5	8.33%
up to 107.9	10	16.67%
up to 105.1	32	53.33%
up to 100.1	40	66.67%
up to 98.5	44	73.33%
up to 96.1	52	86.67%
up to 92.1	58	96.67%
UP 10 00.1	60	100.00%

Kappy Aew Jear

STEVE SOLOMON - 2 BENNETT WAY #24 - NEWMARKET, NH 03857 (603) 659-3470 Equipment: Yamaha TX-9300 tuner with 2 180 khz filters, ALL loggings are new.

JULY 1991 1000 KKKL 92.9 ND Grand Forks 1035 WOW 94.1 NE Omaha, country 1037 KXLP 93.1 MN New Ulm, AOR o/WMGX 1042 KDWZ 93.3 IA Des Moines, CHR, Z-93 1045 KTSB 93.9 IA Sioux Center 1047 KGWB 98.7 MN Moorehead, Q98, AOR 1100 KTCZ 97.1 MN Minneapolis, Cities FM 1100 KISD 98.7 MN Pipestone, Sat. CHR 92.3 MN Alexandria, AC 1124 KXRA 1135 KKCK 99.7 MN Marshall, AC 94.1 SD Aberdeen, AC 1159 KSDN 4 Tr 0115 CFGL 105.7 PQ Laval, WVBF off the air 0121 WHMX105.7 ME Lincoln, Hot Mix 106 CHR. WVBF off the air 0128 WWKX 106.3 Rt Woonsocket, Kicks 106 CHR-dance, over everything 5 Es 1035 WOVV 95.5 FL Ft.Pierce, CHR 1057 KWNC 96.5 SD Sloux Falls 1057 WHTQ 96.5 FL Orlando, Q96, AOR 1120 WWLV 94.5 FL Daytona Beach, Love 94 5 Tr 1145 WCIB 101.1 MA Falmouth, Lite 102, ac, heard over WPOR 1146 WORC 99.9 MA Barnstable, beautiful 8 Es 1032 WOMC 104.3 MI Detroit, oldies, during thunderstorms 1100 WKYQ 93.3 KY Paducah, country 21 Tr 0317 WRKI 95.1 CT Brookfield, AOR, I-95 tight squeeze (WHOM & WCQL?-gc) 0330 CKMF 94.3 PQ Montreal, CHR, Star 94 is off the air, French 0350 WQGN105.5 CT Groton, WJYY off the air, Q105, CHR

0000 WMDK 92.1 NH Peterburough, AC 2340 WBLQ 99.3 RI Block Island, AC 2343 WILL 98.3 CT Willimantic, I-98

AUGUST 1991 DX
11 Es
1143 WLLZ 98.7 MI Detroit, Detroit's Wheels
AOR, only 640 miles
The following logged in car in Exeter,NH
1325 WXBM 102.7 FL Militon,
1330 WAPW 99.7 GA Atlanta, Power 99, CHR
1335 WFOX 97.1 GA Gainesville, Fox 97. ac
1340 WXFX 95.1 AL Prativille, The Fox, AOR
1349 WSKZ 106.5 TN Chattanooga, KZ 106.5
1358 WZZK 104.7 AL Birmingham, country
1425 WVRY 105.1 TN Waverly, V-105, country
1430 unlD 105.3 The All New Q-105.3*
15 Ir
2315 WKSS 95.7 CT Hartford, Kiss 95.7, CHR
and dance, WZID off the air
16 Ir0300 WYHT
105.3 OH Mansfield, Y-105, CHR

26 Tr
0129 CFRQ 104.3 NS Hailfax
0140 CFGM 103.9 NB Moneton
0152 CBH 102.7 NS Hailfax, divers.
0155 WBAZ 101.7 NY Southold, Lite on the Bay
0200 WFAL 101.1 MA Falmouth, F-101, sat CHR
0211 ClOO 100.1 NS Hailfax, C-100, AOR
0300 WCME 96.7 ME Boothbay Harbor,
country over WWEM
0313 WWMJ 95.7 ME Elsworth, oldies o/WZID
0324 WPBC 92.9 ME Bangor
SEPTEMBER 1991 DX
10 Tr

10 11 0324 WFME 94.7 NJ Newark, Family Radio 0324 WRKS 98.7 NY New York, 98.7 Klss FM 11 Tr

11 Tr 1431 CIRO 99.7 PQ St. Georges de Beauce Country, French

2334 WQHT 97.1 NY New York, dance-CHR 19 Tr

0005 WEBE 107.9 CT Westport, Wee Bee 108 adult contemporary, over WXKS

23 Ir 0040 WPKX 97.9 CT Enfield, Kicks 97.9, country, WWGT off the air 30 Tr

0100 WMKS 93.5 VT Springfield, Klss 93.5 satellite adult contemporary OCTOBER 1991 DX

0010 WTSL 92.3 NH Hanover, ac 0100 WFRD 99.3 NH Hanover, AOR

0200 CFCA 105.3 ON Kitchener, easy, 490 mil.

STATION NEWS: In Pittsburgh, 104.7 is now religious, and was heard as WORD. Thanks Dave Nieman. Over in Eastern Pennsylvania, WAEB-FM Allentown (104.1) is still top 40, but it now using the slogan "B104", dropping "Lazer 104.1". In that general area, WJRZ 100.1 Manahawkin changes to a classic hits format. In the Albany area, WRAV Ravena (94.5) is on the air with an adult contemporary format, "Mix 94." Thanks Bill Nienajadly. Other NJ news: WTTH Margate City (96.1) is on the air, urban adult contemporary. Thanks Bob Smolarek.

DAVE NIEMAN-12284 NICE RD-AKRON NY 14001-9529 Equipment: Carver TX-11 modified IF, CM Stereo Probe 9 at 30'. Alliance HD-73 rotor and RG-11 coax. New call [KKKK].

NOVEMBER 1991 DX 3 troposcatter 1349 WAFX 106.9 VA Suffolk, "106.9 THE FDX" 442 np\$ 5 troposcatter 0821 WRVL 88.3 VA Lynchburg, ID, g\$ 394 Is WBYN new or format change? Dave

19 troposcatter 1000 HUORDI 104.7 PA Pittsburgh, ID. 9\$ ex. WEZE, WYDD & WPGH. DECEMBER 1991 DX 2 troposcatter 1409 WBYN 107.5 ?? ???? .call. q\$

Delaware County's 1 st Radio Station



DAVE NIEMAN-HO STA GEH RD-ROCK CITY NY

Equipment: Technics ST-8080 modified IF. Antennacraft FM-10 at 15'. Radio Shack rotor, RG-6 coax. All new to Rock City log.

NOVEMBER 1991 DX 17 tropo 1105 CKNX 101.7 ON Wingham, "FM-102", r\$ 183 30 tropo&scatter 1600 WAER 88.3 NY Syracuse, ID, j\$ 134 (WSBU off) 209 2028 WNFA 88.3 MI Port Huron, call, g\$ (WSBU off)

DECEMBER 1991 DX 92.3 OH Cleveland Heights, "Jammin 0233 WJMO -92", s\$, (WRRN off) 154 100.9 PA Northeast, "Rocket-101" 0259 WRKT r \$, (WMXO off) 98.3 ON Kingston, "FLY-FM", 0321 CFLY rm \$, (WQRT off) 183

Dave

Box 58

(607) 865-4321

WILLIAM R. HEPBURN - 35 LOCKWOOD RD - BRAMPION ON L6Y 417 (EST)

Equipment: modified JVC R-X330V w/indoor dipoles

NOVEMBER 1991 AU 1756 unids (10-15 db) B AU 2100 WPLM 99.1 MA Plymouth Т (calls tent. heard) 2114 WMYX 99.1 WI Milwaukee 415 (10 db, state # 20) 2121 WYLL 106.7 IL Des Plaines **430** 2355 unid 94.7 USA ?? (SRN, Star Radio Network, 10 db)

9 AU 0002 WRUL 88.3 VA Lynchburg 445 (state # 21) 0029 CJMV 102.7 PQ Val-D'Or (FF) 325 10 TR 1254 WONE 97.5 DH Akron-190 Cleveland-Canton 19 TR 2341 WFMK 99.1 MI East Lansing-GrandLedge-Lansing

Comments: More Auroral DX! More garbling. More noise. More tests of patience. Much like trying to understand what someone 300 feet away is saying...challenging but fun. 739. Bill

STATION NEWS: A new regional satellite network has been established in the Northeast U.S., called NESN: North East Satellite Network. Programming is adult contemporary and in the evenings. So far these FM stations have reportedly signed on: WWSE 93.3 Jamestown ,WKPQ 105.3 Hornell, WFLR 95.9 Dundee, WVOS 95.9 Liberty, WENY 92.7 Elmira, WTOJ 103.1 Carthage, WKGW 104.3 Utica (all in New York State). WDNO 95.3 Laurel, Md. is now on the air... WROU 92.1 West Carrollton (Dayton), Ohio is expected on soon with an urban format, "U92" Speaking of Carrollton, WKFK 100.5 (Michigan) is expected to go to top 40, WTCF, "The Fox". WTRV 94.3 is // WAIR 92.5 in Upper Michigan, oldies.

DORTHERD FM DX

ERRY MONROE - 3135 FALLS ROAD - MARCELLUS NEW YORK 13108

Equipment: JVC tuner (two 110 khz IF filters), 10 ele FM yagi, Various other antennas, traps, filters amplifiers, etd!

SEPTEMBER 1991 DX 5 Tr

1500 CKAT 101.9 ON North Bay, on car radio 1800 CFRC 101.9 ON Kingston, car radio again

solid signal.

18 Tr 2030 WPAC 92.7 NY Ogdensburg, the real hits" 2035 WYUT 92.7 NY Herkimer not on the air!

2155 WKOJ 92.7 NY Middletown, "92.7 KOJ" Hard rock, toug! reception

OCTOBER 1991 DX 2 Ti

0445 unID 88.9, who is this all night BBC mono signal? (Jerry, I think I read somewhere that

Auburn does this. Can anyone confirm?-gc)

1200 WAWZ 99.1 NJ Zarepath, wx for Cent. NJ 8 TrS 1040 WPLR 99.1 CT New Haven, PLR, Bowie

October 27 Tr

0150 WRTY 91.1 PA Jackson Township, Jazz 90 Lund Drive, over CJRTs all night tone

0210 WETD 90.9 NY Alfred, s-off in strong, I turned this station on in 1973!!

0225 WVCR 88.3 NY Loudonville, strong, metal 0230 WBUR 90.9 MA Boston, "Musica Africa

Latina" all nite, good signal.
0235 WKNE 103.7 NH Keene, with winning nos in the Massachusets Lottery.

0255 WKRH 105.9 ME Bath, heard carrying all nite KRH satellite feed. ID as "Maine's Classic Rock, WKRH Bath-Augusta", new statel

0330 CIUT F9.5 ON Toronto, Bootleg Reggael 29 Tr

0032 WUCX 90.1 MI Bay City, with weather for central Michigan and back into jazz

0040 Trops gone to aurora, excellent visual display (same on November 8-gc) outside, aurora extended into southern sky at times (same here, how does that happen?-gc), with the sky turning red at times. Nothing IDed, just noisel

Well, seasons greetings to all, hope conditions were good during the holidays. The week of October 26 to November 2 was loaded with trop activity. October 30th CIXK 106.5 Owen Sound, Ont. was in perfect on my 20 mile drive to work; not bad for 225 miles. The combination of snow in the west and a "nor-easter" off of New England brought one of the best Indian summers here in recent memory. Still planning on building a rhombic before the ground freezes, all I need is some free time! 105.9 brought a new state (Maine), though I still am confused on the call. (They are WKRH, not WIGY anymore gc). the KRH DI gave out a 800 number, so I called him and asked where he was. He said Dallas, Texas, this surprised me unless I had E-skip off the back side, then he said he was on a satellite network and yes they feed a station in Maine. A later ID said WKRH Maine's Classic Rock. I'll take itl. One last note: 100.9 WEZG claiming to be twice the power, now clawl. 73s Jerry

DOUG SMITH - 14 BROOKSIDE COURT - NASHVILLE, TENNESSEE 37209-4503 Equipment: Sony ICF-2010, whip antenna DXing in New England (where?-gc)

Equipment. Donly ici 2010, will at	1001111	ia, Danis in item Lithania (where. 8)	-/
OCTOBER 1991 DX		WCDJ 96.9 MA Boston	155
23 Tr		WBRU 95.5 RI Providence	145
Stations heard at ≈ 2300		WXKS 107.9 MA Medford	145
WHJY 94.1 RI Providence	145	WHUS 91.7 CT Storrs, 3.2 kW	95
WSRS 96.1 MA Worcester	135	WROR 98.5 MA Boston	155
WNTX 96.3 MA Nantucket	200	(calls are now WBMX-gc)	
WCTK 98.1 MA New Bedford	145	WBCN 104.1 MA Boston	155
WPLM 99.1 MA Plymouth	180	WMJX 106.7 MA Boston	155
WWRX 103.7 RI Westerly		WSSH 99.5 MA Lowell	155
WFCC 107.5 MA Chatham	210	WFPG 96.9 NJ Atlantic City	135
WRIU 90.3 RI Kingston, 3.4 kW	130	WKTU 98.3 NJ Ocean City, 3 KW	135
WSNE 93.3 MA Taunton	145	24 Tr (from car on I-84)≈0800 fron	2
WAAF 107.3 MA Worcester	135	Middletown,NY	
WVBF 105 7 MA Framingham	155	WJBR 99.5 DE Wilmington	130
WCRB 102.5 MA Waltham	155	≈0830 from Port Jervis, NY	
		WDRC 102.9 CT Hartford	105



Bill Nienajadly PO Box 2999 Clifton NJ 07015-2999

Trops from October 22 thru Oct 27. Nightime,Boston FM's reaching full strength pinning the meter plus other stuff from DC,Baltimore,Virginia Beach VA, Central PA,Hudson Valley and other areas out to 300 miles (at times). In the Mornings, WAAF 107.3 was noted several days ina row going to work on the car radio (Im now using a Delco AM/FM digital car radio circa 1982 or 1981 modified with TWO 110 khz filters). Trops during this period were at or near local strength. Best nite was Oct 23. Highly Edited. Stations would fill page & a half

1850 WBLQ 1900 WHMP 99.3 RI Block Island 99.3 MA Northampton (rare) 1915+WWBB 101.5 RI Providence o/WMSC 94.1 RI Providence LOCAL STRENGTH YLHW WCTK 98.1 MA New Bedford LOCALSTRENGTH 97.3 MA '' 1.4 8.5 91.1 CT Fairfield over 8 mile WFMU! 1930+WSHU WHCN 105.9 CT Hartford over 12 mile WNWK WPLR 99.1 CT New Haven over WAWZ Local strength 2050 Boston picking up fast 2100 Had to leave, 2320 Back in.

2330+ Areas to the Southwest in
Boston 100 db All Class B's in.
Norfolk VA, Eastern Shore MD,
Hurlock 100.9 MD & New London CT
100.9 fighting it out, WYFI 99.7
WOLC 102.5 + many, many others.
WHOM 94.9 Mt Washington NH also
in with steady tropo.
Providence RI, New Bedford+ other
Eastern New England FM stations.

Overall, a VERY dramatic WEEK of tropo, but it didn't get me Maine or anything into NC except 93.7 Moorehead City NC. I belive as others (here in NJ) that one of these openings had potential to go real deep into NC,SC,VA and possibly GA too. Oh Well. Heard a POLKA music program on Sunday morning @ 0730+ on 98.1 Oct 27..any ideas?

11/3/91 0230-0300 On the modified Delco Digital with 2 - 110 khz filters car radio in the car, driving in Fairfield NJ going to Montville NJ. Noticed NYC locals off the air 92.3, 96.3, 97.9, 98.7,100.3,102.7,104.3, 105.1, 107.5 ALL OFF THE AIR!

I couldn't come home to DX right away, so DXed on the car radio and found......
...WISYZ 100.3 Media PA, WSKR 102.7 Petersburg NJ tent with CNN news and sports.
...WIYY 97.9 Baltimore MD, WWSH 97.9 Hazelton PA, UNID 97.9 Country Enfield CT?
....105.1 Country music Ephrata PA assumed, Batlimore 102.7 "V-103" Some of these I could have counted in the Clifton log as these were heard 8 to 11 miles from my Clifton QTH but my personal mileage for counting anything in the Clifton log is a approx FIVE miles, club rules say 25 miles radius is countable but I feel bettar with the FIVE mile 11mit.

11/8/91 A very strong aurora activity noted on the car radio at 1740 and when I got home, TV was messed up to ch 10+!!! This was far stronger than 3/13/89. I heard there was E-skip later on in the evening on TV but I missed it.

12/14/91 2000+ Very good Tropo/scatter, it was really a comination of both. I heard CHTZ 97.7 St catherines ON at 310 miles, WVOR 100.5 Rochester NY 235 miles; at 2200+ rarely heard WGBI 101.3 Scranton PA (rare do to strong WKCI CT off the back), WPEL 96.5 Montrose PA, WKRZ 98.5 Scranton PA, WDNH 95.3 doing real nice here, WKGB 92.5 way over WXTU in fact WKGB was there for a hour or so, WVOS 95.9 Liberty NY strong for a while (rare), WWDL 104.9 Scranton PA only the second time I heard them, WHWK 98.1 Binghampton NY, 2250 Very rare WPCX 106.9 Auburn NY (near Syracuse), A bit later into the midnite hour I heard WDBA 107.3 DuBois PA at 249 miles along with Utica 107.3 and I did hear some MS bursts on 107.3. Overall, not no blockbuster opening by far but rather a chance to hear some rare or otherwise very weak stations at very good strength.

I did notice that the 94.3 translator in Pomona NY is now relaying WBAB 102.3 now. Bill Nollman tells me Digikey is all sold out with the 110 and the 150 khz filters and it will be a 14 week wait again for them. I knew this would happen. Oh Well

The Mod Delco digital is excellent with the TWO 110's, sound quality is OK. Went to Joe Fela's house where I modified his GE Superadio with one 110 khz filter. He bought out another GE Superadio which I modified months earlier with a 150 khz filter. We compared both Superadios and the one with the 110 filter dug out Baltimore 106.5 and Wash. DC 107.3 where as the 150 khz Superadio could barely get, I should mention we were using a whip antenna for this comparison test, trops were up a bit too. At Joes house, in my car we checked out the selectivity of my Delco car radio. He seemed impressed that the Delco in the car using the window antenna could get stations like 94.9 Harrsburg PA (WFME 94.7 is so wide that 94.9 is usually covered up even on modified radios) Also WXMH 99.7 from Central PA, WVOR 100.5 Rochester with WRCH 100.5 CT, All adjacents were in the clear with no adj channel interference, DC, Balt, adj's all perfect, By now you should get the idea how well the 110 filters work. Joe lives 2 dozen miles from NYC were I live only a dozen miles from NYC, so the Delco did perform better there. Those who haven't yet gone on to modify your car radio, by all means do! Find out what you are missing! Goodxing!

DORTHERD FM DX

SAUL CHERNOS - P.O. BOX 611 - ORILLIA, ONTARIO CANADA

From Orillia JULY 22, 1991 Es 1800 KECA? 89.3 "KECA in the Capitol City" **AUGUST 1991 DX** 17 Tr (CIDC off) 0130 WNNR 103.5 NY Sodus, rp 22 Tr 0757 <u>WNJA</u> 89.7 NY Jamestown,// WNED 94.5 0953 WFMK 99.1 MI E Lansing 1036 CITE1 102.7 PQ Sherbrooke, French 90.3 MI Twin Lakes 1040 <u>WBLV</u> SEPTEMBER 30 Aurora 1649 WDSD 94.7 DE Dover From Burnt River July 31 E-skip 88.1 FL Bradenton 1852 WJIS **AUGUST 1991 DX** 13 Tr

OCTOBER 14 Tr 0643 WSNN 99.3 NY Potsdam 14 MS 0723 KEBC 94.7 OK Oklahoma City 94 Country KEBC 23 Tr (WBSU off) 0200 WCID 89.1 NY Friendship 0713 WNJA 89.7 NY Jamestown, // WNED 94.5 <u> 24 Tr</u> 0456 WJSL 90.3 NY Houghton, g 0600 CHUO 89.1 ON Ottawa 25 Tr 1523 WNYP 99.9 NY Cortland, Power 99.9,rp 1536 WCPZ 102.7 OH Sandusky 99.1 OH Fremont 1958 WFRO 2000 WAAL 99.1 NY Binghamton 2230 WEMU 89.1 MI Ypsilanti 2307 WTGV 97.7 MI Sandusky 2327 CHIKt 98.9 PQ Quebec City, Radio 1645 CJMJ 100.3 ON Ottawa, New Magic 100 Mutuel Network ID, French

Not a season to write home about. Es had tunnel vision to Florida and summer and early fall tropo has stunk. Delaware a new state in Orillia, though had same station on Tropo in May at Burnt River. The French station during July 20 Es really intrigues me. Florida, Louisiana, or Carribean? (Could it have been 88.7? I think I have seen reports of KRVS Lafayette being French once in awhile-gc). I doubt Quebec. WGMX calls heard on 94.3 same date, and references to FL Keys, so they were not yet on 94.7. CJMJ is operating in Ottawa, and so is CHUO, which can be heard in Ottawa, though on a fade-in and out kind of basis. Its programming is French and English and it's run out of the University of Ottawa. I strongly suspect Quebec City on Aug 25, but there's a remote possibility that the freq. was 99.1 (I haven't digital readout and 99.3 and 98.7 are strong enough that what's in between often is hard to determine. 73s, Saul

GEORGE GREENE - 1527 SUNSET AVENUE - AKRON, OHIO 44301

Equipment: McIntosh MR78 tuner, Stereo Probe 9 approx 35' above ground, new are underlined

OCTOBER 1991 DX

30 Tr

2048 CBEF1 103.1 ON Learnington, French prog., by carefully nulling CIQM London...was easier to

hear on the car radio that night!

1700 CJMV 102.7 PQ Val D'Or

95.3 ON Hamilton, classic rock, Y-95 numerous other re-logs from western NY to eastern MI that night with very good signals.

OCTOBER 1991 DX 31 Tr

0038 <u>WXTA</u> 0040 CJBC4 97.9 PA Edinboro, country music 99.3 ON London, more French CBC 0041 CFGX 99.9 ON Sarnia, a/c, "The Fox"

NOVEMBER 1991 DX

0028 WWHT 105.7 OH Marysville, "Hot 105" urban CHR music right through local WMJI!

Noted severe aurora cx on Friday the 8th while driving across northern OH/IN (not to mention a great visual display of the Northern Lights, too)---FM reception very poor that evening w/nothing of note heard. BIG cold front went thru here on 11/1 and temps and cx haven't been the same since, heh. 73

BOB SMOLAREK - 1 56 OLDWICK ROAD - WHITEHOUSE ST NEW IERSEY 08889

Equipment: McIntosh MR78, Carver TX-11, Stereo Probe 9

SEPTEMBER 1991 DX

30 Tr

2300 WSKR 102.7 NJ Petersburg, all sports NOVEMBER 1991 DX

8 AU

1915WBPR 97.7 SC Georgetown,r,Power 98

1920 WKZO 101.7 SC Myrtle Beach, rp

1925 WXLY102.5 SC N.Charleston, o

1935 WVES 99.3 VA Accomac, b

14 Tr

2100 WPGM 96.7 PA Danville, g 2200 WKSB102.7 PA Williamsport, r November 18 Tr

2000 WTTH 96.1 NJ Margate City, s 2015 WKSB102.7 PA Williamsport, r

again over WNEW!!

Comments: November 8th produced the first aurora that I was able to identify, thanks to Bill Nienajadly for the tipoff. I was hoping to hit 1,000 stations heard by the end of the summer but the lousy Eskip season ended that wish. I'm at 941 73s Bob. now.

DORTHERD FM DX

dBRUCE HALL - 5 STIRTON AVE. - BRANTFORD, ONTARIO CANADA N3T 1E2
Equipment: IVC IRS 201 receiver (mod with 3 150 khz filters), Magnum Dynalat: 205 Sleuth, Probe 9 fed with RG6 at 50 feet AGL, Crown rotor, Distances are in kilometres

SEPTEMBER 1991 DX 0807 WCOW 97.1 WA Sparta, k, local ad heard with Wisconsin ment, followed by calls 0855 WVSR 102 7 WV Charleston, r. Super 102 after local ad, Bob & Josh of Morning Zoo 0759 WWCK 105.5 MI Flint, r, CK 105.5 after ad for U of Mich Berlin "Take My Breath Away" 288 OCTOBER 1991 DX 1 TrS 0721 CFBK 105.5 ON Huntsville, rm, Birthday messages, time check, Lenny Kravitz music 265 2 Tr/TrS C746 WWKS 106.7 PA Beaver Falls, r, Kiss 106, "Adult Rock Hits all the time", followed by BST mx "Spinning Wheel", furmat change? 267 0800 WWYN 106.9 TN McKenzie, k, Win 107, local ny with ment of 3 Jackson youth 0715 CING 107.9 ON Burlington, rs. Dance 108 new nonID from Monday to Saturday 35 99.1 VA Roanoke, r. O99, nonID 655 0802 WAYX 99.1 WI Milwaukee, legal ID 633 Traffic report 10 MS U801 WPLR 99.1 CT New Haven, pr, Rock 99 calls head, relog from 11/18/90 MS log 602

OCTOBER 1991 DX 13 MS 0800 WAWZ 99.1 NJ Zarepath, g, "Committed to bring you — we are 99.1 WAWZ Zarepath NJ" 506 99.1 LA New Iberia, mr, y/l with 0729 KDEA 1817 calls, former E-skip, 6/12/90 20 MS/Tr 0833 WHCM 99.1 WV Parkersburg, k, Power 460 Country 99, mention 25,000 wasts power 460 1001 WHKO 99.1 OH Dayton, k, K 99, Continuous Country Favourites K99FM 515 22 TrS 1934{WMJT} 100.9 MI Piconning-Saginaw, rm Magic 101 after music by Stevie Wonder 322 0803 WKYS 93.9 DC Washington,rs, 93KYS 552 25 TrS 0745 WFCB 94.3 OH Chillicothe, r, B94, local ad for Papa Dions Pizza, B94 heard 26 TrS 08:8 WDSD 94.7 DE Dover, k, "Hev! Where are you calling from? Newark, Georget ... Princeton, NJ, it's now easier to get thru on our toll free line 1-800-955-WDSD, call us anytime" 27 TrS 0718 WELK 94 ? WV Elkins, r. NEW K95, station promo for bumper stickers at local business 475

Happy Holiday, Marry DX Mas, 73dB

MARK STRICKER! - 3852 N. OCONTO - CHICAGO, ILLINOIS 88.3 WXAV is on, heard on the way south 10/31, with odd mix (metal, R & B, jazz). Signal not great anywhere, but it does get out to the south and west all right. Yes, Elving, it's \$. Stopped at 95th and Cicero (1 5 miles from station) to record a side on my way home 11/5. 88.9 WARG Summit (Argo H.S.)-keeping more regular late hours this year-even caught at home after WRRG signoff. Has a variety of rock only WNTH 88.1 more eclectic among local high schools this fall. 94.7 WYTZ - add to the "FM happenings caused by AM" file. sister WLS 890 had been out-rating them, so dropped the hits and started simucasting the talk?!? May or may not officially be WIS-FM now. was still legally W/TZ after a week of yap and I can't stand them to check, hi.
95.9 WKKD-FM Aurora-is getting strange, almost like they're evolving into an ez listening or even "new age"? Mixes in instrumentals, no accidentally as they promote it, that are often jazz-like or even the etherial "new age" Side note = Almost everyone has mistakenly called the jazz-)ight ac stations new age, stations like WNUA,KTWV,KKSF,WOCD,WNWV,etc. Far as I know, NO commercial stations in the US play <u>real</u> true "new age" music except maybe for the two-hour syndicated "Musical Star-Streams" program, a commercial version of "Music from the Hearts of Space" on Sunday nights or like time period. 96 7 WLLI Joliet - shifted to familiar album oldies (aka "classic rock") seems like they flip-flopped satellite feeds with 105.5? 98.7 WFMT - has been moving towards becoming, at least in part, a "listener sponsored" station. Strange move as they've been relatively profitable as full commerical classical, plus their main rival WNIB already relies on listener contributions and program guide subscriptions to make up for weak ad revenue, and the non-commercial stations that already actively seek listener money are hurting. (Visual - shrug of shoulders and look of bewilderment). 100.3 WPNT - with 94.7's lazy shift, WPNT becomes "the station most likely to change" has lost over 2/3's of audience from the ez WLOO days, and is known

105.5 WAIT-FM Wodstock - switched to WZSR "Star 105.5", back to satellite

to be hurting from cash flow

medium-to-up AC (via Unistar?)

MARK STRICKERT's comments continue

Recent out of town news, maybe old by now but just in case... WESE now on 92.5 still ez (oh yeah ex 95.9 Baldwin,MS). 94.9 Holly Springs, MS not heard on. KYMO-FM East Prairie,MO (freq?) (105.3?-gc) heard on, with album oldies. WYUB 91.1 Vincennes, IN has ez listening during the day?!?!
WEZW 103.7 Wauwatosa WI still trying to decide if they're ez or soft light ac - have heard blocks of both, and even jazz/ac mix on Sunday morning (trying for former WBZN listeners?). Slogan is "Easy 104" (with soft jingles), strict.

JEFF FALCONER - BOX 63 - CUNTON, ONTARIO NOM 1L0

Equipment: Magnum Dynalab FT-101A, Probe 9 at 27' with rotor, RG-11u feed, Magnum Dynalab 205 preamp. AUGUST 1991 DX Nov. 17 DX continued 1142 {WPNT}100.3 IL Chicago, r\$, The 25 Tr 0519 WRMM101.3 NY Rochester.rm\$ Point, ex WXEZ WVAZ 102.7 IL Oak Park, ads, V103\$ Warm 101.3 198 1151 0523 WVAZ 102.7 IL Oak Park,rm\$, V103 335 335 very strong q 1154 WJMK 104.3 IL Chicago, m\$, Magic 0612 WUSN 99.5 IL Chicago, k\$ 335 333 0633 WEFM 95.9 IN Michigan City, b\$, We-FM, tough in shallow CFPL null 1159 WMRI 106.9 IN Marion, ID, ABC nx\$ 330 1213 WFMT 98.7 IL Chicago, c\$ 311 333 1214 WLUP 97.9 IL Chicago,r\$, Loop 1207 unID 96.7 rm\$, The all new Hot 96 Licks FM 333 1238 WLYY 101.7 Ml Lansing,ro\$, Y-102 1313 WNSN 101.5 IN South Bend, ads\$ OCTOBER 1991 Sunny 101.5 277 16 GW 1316 WDOR 93.9 WI Sturgeon Bay. Packers Football game 1825{CJXY} 95.3 ON Hamilton, op\$, Y-95 307 90 WWKI 100.5 IN Kokomo, k\$, ex CKDS 1323 321 NOVEMBER 1991 Hit Country 100.5 8 Au: Aindex 35/Kindex 6 **18 TrS** 2156 WSHW 99.7 IN Frankfort, ro, ID 2154 WCZY 104.3 MI Mount Pleasant, \$ end 345 9 Au: Aindex 101/Kindex 8! of Pistons Basketball game into b music 0325 WZOK 97.5 IN Rockford,r. ZOK 400 22 TrS: * means the Probe 9 was phased into a 0400 WASH 97.1 DC Washington, m, ID 394 log periodic antenna. 16 MS 2151 WMSH 99.3" MI Sturgis,r\$, CJBC4 1532 KKYK 103.7 AR Little Rock, "...in phased, ID 239 Little Rocks'....center..." {WKMF}101.7* MI Tuscola,k\$, ID, ex 848 2252 WGMZ, CKNX phased 17 Tr/TrS 109 0230 unID 93.5 ?? rp\$, The Voice **23 TrS** 0249 WBCM 93.5 Ml Boyne City,k\$, BCM WVCC101.7° PA Linesville, bigband\$ ID 333 1305 WLS 1131 94.7 IL Chicago, t\$ 333 CKNX phased out 158 1138 WLTQ 97.3 W! Milwaukee, Lite 97 324 **24 MS** 1140 WUSN 99.5 IL Chicago, k\$, US99 333 0424 KKYK 103.7 AR Little Rock, "...in Little Rock..." 848

A very intense aurora on November 8/9 reduced the band to hash. The Northern Lights put on a dandy display here. Threw together a crude phasing setup and have achieved encouraging results. I use a 13 element log periodic antenna and the Probe 9 fed into a Magnum Dynalab Signal Slueth amplifier. The attenuator and tuning controls on the Signal Sleuth are then set for the best null on the offending signal. Reminds me of some of the phasing setups I have used for medium wave DX over the years. 73 Jeff

dBRUCE HALL - 5 STIRTON AVE. BRANTFORD, ONTARIO CANADA N3T Equipment: see Bruce's previous report appearing this month NOVEMBER 1991 DX NOVEMBER 1991 DX 8 Tr <u>LTr</u> 0800 WTRV 94.3 MI Leland, ro // WAIR 92.5 0755 WKSD 99.7 OH Paulding, Kiss 99.7, r km Northern Michigan's Super Station". 506 9 MS 0730 WAPW 99.7 GA Atlanta, rs, Power 99, 1cl 0732 WPUB 94.3 SC Camden,r, calls, mention car ad, Highway 138, ph# request line 741-0097 of Columbia, SC weather spoke to Paul to confirm ad. 500th catch!! 989 6 MS 10 GW 0905 (WGRF) 96.9 NY Buffalo, 97 Rock, r, "WGRF Buffalo, 97 Rock", ex: WGR-FM 0728 KAMO 94.3 AR Rogers, k, K-Mo 94 FM 1408 0801 **WIFX** 94.3 KY Jenkins, r, 94IFX 2200 WJCF 88.3 NH Nashua, calls. E-skip on 0705 KFGO 101.9 ND Fargo, Magic 102 KF TV, tried FM, and got my 33th state, but E-skip did not reach the FM 34th state 0717 WHHY 101.9 AL Montgomery, Y102 BRUCE'S COMMENTS ARE ON THE NEXT PAGE

115

1311

BRUCE HALL's comments.

Spent 7 hours monitoring different open frequencies for MS during Leonids shower. Major disappointment as far as number of bursts per hour. Snagged ND though; new state. I hope getting Geminids shower December 14 will produce more loggings. Other than MS, not much to report. Must be the time of year. Thanks to Sam Brown, UPI, caught some E-skip activity on TV. Thanks to Greg for helping to ID WLBT TV 3 Jackson, MS. Es didn't reach my FM dial! \$#\$@1^#! Hope others are getting their share of DX. Happy New Year! 73dB (Bruce also sent along a brochure on a new museum forthcoming in Brantford called "icomm", that will demonstrate various communication technology-gc)

Bill Nienajadly Po Box 2999 Clifton NJ 07015-2999

November 23 Tropo to upper Hudson Valley

1700	WRAV	94.5	NY	Ravena ID110	1733 WSSV 101.3 NY Stillwater ID161
171/	WORZ	08 5	NV	Catskill ID strong 110	1735 WKLI 100.9 NY Albany ID finally!142
1719	MUNZ	30.5	141	Cacskill ID Sciong 110	1740 VOCT 100 1 NV Handatask
1/19	MKRF	100.5	NY	Warrensburg ID Weak! 1/4	1743 WDST 100.1 NY Woodstock
1731	WENU	101.7	NY	Hudson Falls ID.strong173	1747 Albany FM's way up & strong!
1/31	MEINO	101.7	14.1	11003011 1 0113 10,301 0119170 1	1 1747 Arbany Fir 5 way up a 5010ng.

Four new stations in a half hour, not bad for a small trop opening like this. Just before checking the conditions, I replaced my filter line up to 180-180-110-110-110 and this helped on my 100.9 which had some problems with the 180-180-150-150-150 set up. Since I don't expect any real good openings (except December MS & ES)... I'm going to concentrate on the Transcatter mode on frequencies like 100.9 95.3 Goodying! Bill

on the Tropscatter mode, on frequencies like 100.9, 95.3. Goodxing! Bill Also, thanks to both Bruce Elving and John Ebeling for setting me straight on my Minnesota UNIDs. Thanks to Harry Hayes who also set set me straight on my WEBZ 99.3 question which did indeed turn out my WEBZ was WEBZ 99.3 Mexico Beach FL as he logged it too at the exact same time that I did. One other thing, WPRB 103.3 Princeton did increase their power and possibly their tower height, which Joe Fela says WPRB is supposedly on the WNJT-52 tower now. WPRB is heard here now a lot better now and could give me problems on E-Skip or tropo. I received a brochure on Andy Bolin's phase box, in it he goes into complete detail on the phase box and phasing in qeneral, I found it really interesting. Im seriously considering getting a phase box. Goodxing!

GREG CONIGLIO - 5100 GLENWOOD DR. - WILLIAMSVILLE, NEW YORK 14221

Equipment: Carver TX(1) tuner modified with 150 khz filters, Stereo Probe 9 mounted on roof, CAC-11 and RG6 coax, Archer-rotor, rabbit ears with dials used with RS 0-10-20 db amp for phasing.

OCTOBER 1991 DX	
18 Tr	
1124 CITE 107.3 PQ Montreal, French m\$	308
1130 CJFM 95.9 PQ Montreal, r\$, new	
song by Genesis.	308
1129 W285AD 104.9 NY Watertown, translat	or
of WMHR 102.9 Syracuse, weak sig, g	153
2229 {CKLW} 93.9 ON Winsdor, of, ex: CKM	IR
29 Tr	
0000 CBON 104.9 ON Gogama, FF mono	370
CIOM 104.3 ON Sault Ste. Marie, k\$	363
CBCE 97.5 ON Little Current, CBC	259
0040 WILLER 107 7 MI Almona over local	274

WERZ/O7./FM

(WGLD)105.1 MI Cheboygan, classic

105.1, ex: WGFM and WQLZ

NOVEMBER 1991 DX

8 Au

1700 WVXU 91.7 OH Cincinnati, ID in car radio, only 2nd time heard via Au, and both times heard in car. Last time was in 1989, driving on Aurora Ave. (seriously!). Strongest Au I have heard, with possible exception of 3/13/89, but not many stations were readable. Nice visual display too

9 Au
0000 WRDR 104.9 NJ Egg Harbor City, strong
and unusually clear, big band music 330
28 TrS (DXing in Rochester, New York), *1800

CITE 107.3 PQ Montreal, French over WRCK, m\$ 254
WHLM106.5 PA Bloomsburg, several over WYRK 160

CING 107.9 ON Burlington, rs\$, Dance 108 heard over WRHP 112

WIRQ 94.3 was not noted on the air. None of the area CPs were noted on the air either.

This has been a horrendous season for trops. Other than the two mediocre openings in October noted above, there has been next to no activity. September was completely lacking in any real opening. This is the exact opposite of last year, in which there were multiple 600+ mile openings. I have heard of several out of season Es openings, caught only one early in November, but the MUF was only channel 5. Thanks Bob Seybold and dBruce Hall for phone calls alerting me to that opening. Thanks to Mike Cherry, and Dave Nieman for sending logos. I received the convention video tape from Torn Bryant recently: just like last year Torn did an excellent job. And thanks to all who have contributed to Northern FM DX during 1991, by reporting, or sending in logos or special reports. I hope to hear from all of you more in 1992, and lets hear from some new people tool

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Danny Buntin 1312 N. Skyline Stillwater, OK 74075

JANUARY 1992 SOUTHERN FM DX IS FOR REPORTERS FROM: AL, AR, AZ, CA, CO, DE, FL, GA, HI, KS, KY, LA, MD MO, MS, NC, NM, NV, OK, SC, TN, TX, UT and also DC. Happy DXing in '92 and report soon!

DEADLINE: 14th

REPORTS ON THE NOV. 8th AURORA AND SUBSEQUENT ES ARRIVE.

SAN ANTONIO REPORTS IN.

Doug Allen, w2crs, P. O. Box 5646, Woodland Park, CO 80866 Equipt.: Onkyo T-4087 and various Pioneer tuners(all IF modified), FM-13 at 50 feet. 11/8 Au 1700 WNIN 88.3 IN Evansville, ID 1730 ???? 96.9 by turning antenna 5 different stations all mushy. 1800 KCEV 88.3 KS Wichita, new cl 1900 KJTY 88.1 KS Topeka, ID 2042 KZBO 93.7 ID Pocatello, ID 2106 WPRE 94.3 WI Prairie de Chien, ID 2110 WXLP 96.9 IL Moline, 97-X 2131 KFMH 99.7 IA Muscatine, ID & "Iowa City 2136 KKEZ 94.5 IA Fort Dodge, ID 2145 KHAK 98.1 IA Cedar Rapids, ID 11/9 Es 1735 KILT 94.5 TX Harlington, ads 1737 WKEU 97.7 GA Griffin, "Cool FM" 1745 XHAAA 93.1 MX Reynosa, SS 1746 KGNZ 88.1 TX Abilene, ID 1749 KKMJ 95.5 TX Austin, ID and "Magic 95.5" 1754 KVMV 96.9 TX McAllen, g 1756 KMBHt 88.9 TX Harlington, local events

11/9 Es 1759 KBNR 88.3 TX Brownsvile, ID 1801 XHNOEt91.3 TA Nueva Laredo, SS 1802 ??? 97.1 ? SS 1804 WJIZ 96.3 GA Albany, ID 1806 KOYET 94.9 TX Laredo, Y-95 1807 KHER 94.3 TX Crystal City, SS then "KH-FM" in EE 1811 WQLTt107.3 AL Florence, 107-Q 1813 ??? 103.1 MS? mention of "Golden Triangle" 1815 WWUN 101.7 MS Clarksdale, ID 1817 WALX 100.9 AL Selma, ID & "Laser 101" 1822 WSYA 103.3 AL Montgomery, "Sunny 103" 1840 WTYY 95.5 AL Dothan, ads 1853 WABB 97.5 AL Mobile, ID 1855 WKSJ 94.9 AL Mobile, k,"95 KSJ" 1900 WJST 94.5 FL Port St.Joe,"rel ad for WJOE" 1907 KPOW? 98.7 ? "K-POW" ID
1915 WTYL 97.7 MS Tylertown, ID, "1290 AM"
1920 WXLT 94.1 MS McComb, "Sunny 94.1"
1934 WINK? 96.9 FL garbled ID & "sun coast giant", double hop?

The band was loaded with aurora signals the evening of the 8th, but very difficult to copy any thing as several signals were competing on every open frequency and audio was very mushy, typical of auroral signals. I worked about 20 states on 144 mHz during the same period. The Es of the next day followed excellent 50 mHz F-skip to South America, New Zealand, Australia, and Japan, the latter three new for me on six meters.

A friend in Silver Lake, KS, Greg Cerny, has been DXing a lot recently. He has test equipment at work and offered to test and compare the Murata and Toko 150 kHx IF filters. I sent him 10 of mine, plus he already had quite a number of Murata and Toko filters. He says there's no comparison. The Murata filters have less insertion loss, a flatter bandwith, steeper slopes, and are much closer to 10.7 mHz. Whereas almost all Murata filters are within 10 kHz of the 10.7 mHz specification, many Toko filters are 10 to 30 kHz of. From now on, I'm sticking to the Mratas! Greg also built up two 5 filter "super-duper IF amplifiers" described by Tim McVey in his "Technical Topics" Nov. 1990 VUD. Greg reports dramatic adjacent channel selectivity using one of them in his tuner. He sent me the other circuit board which I will install and report on next month. Belated

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Season Greetings, and a Happy New Year to all!
Keith D. Pugh, 227 Martin St., New Hope, AL 35760
Equipt .: McIntosh MR-78, Probe 9, RG-6 coax
1258 WHTK 99.7 SC Port Royal, ID 350
1250 KAWL 104.9 NE York, ID, prev. Es
1251 WPKY 104.9 KY Princeton, r, ID
1253 WKYW 104.9 KY Frankfort, lc. ad
1255 WKHG 104.9 KY Leitchfield, ID
1924 WKRY 93.5 FL Key West, prev. Es
11/6 trs
2152 WKLR 93.1 IN Indianapolis, o, ID 360
11/7 trs
2247 WFAE 90.7 NC Charlotte, c, ID
                                        300
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11/8 au (with Onkyo tuner)
    1811 tune in, 30 db to 107.9, noise!
    1838 KHHT 98.7 MO Springfield, 22db
    1846 KWMU 90.7 MO St. Louis, prev. tr,7db
    1853 KGOR 99.9 NE Omaha, prev. Es, 14db
   1920 25 db noise again, total f/out 1928
    11/9 Es
    1910 KSPK 102.3 CO Walsenburg, k, ID
   1918 KSLV 95.3 CO Monte Vista, "V-95.3"
1921 KRTZ 98.7 CO Cortrez, k, ads
    1922 KWQX 101.3 CO Durango, r, ID
   1930 KRSJ 100.5 CO Cortez, ads
    1932 KRTN 94.3 NM Raton, nx
    1941 KRWN 92.9 NM Farmington
cont....
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SOUTHERN FM DX	Pugh	, cont. JANUARY	1992
11/9 Es	_	11/17 tr	320
1959 KWYK 94.9 NM Aztec, r, ID	1	1402 WPEG 97.9 NC Concord, s, ID	320
2004 KONM 93.7 NM Gallop, "KQ-93"		11/27 tr	260
2008 KNYN 95.5 NM Santa Fe, k, ID		2332 KBFC 93.5 AR Forest City, ID	200
2013 KMGN 93.9 AZ Flagstaff, ID		11/28 tr	425
2016 KAFF 92.9 AZ Flagstaff, k, ID		1101 KLSA 90.7 LA Alexandria, ID	250
2031 KUNM 89.9 NM Albuquerque		1105 WGRM 93.9 MS Greenwood, r, ID	230
11/10 gw-tr (recent new FMs)		12/2 Es	
1700 WERQ 104.5 TN Knoxville, Q-104,\$	160	1547 WOW 94.1 NE Omaha, "wow FM"	
1800 WGOG 96.3 SC Walhalla, ID	180	1548 KEZO 92.3 NE Omaha, Z-92	
1825 WJBZ 96.3 TN Seymore, g, \$,ID	170	1551 KNEN 94.7 NE Norfolk	
11/27 tr		1553 KLZU?93.5 ?? k,\$	540
1300 WINL 98.5 AL Linden, k, Win-98,\$	162	1558 KTIN 92.1 MO Trenton, k, ID	340
1308 WRXR 96.3 SC Aiken,rp(rare)	316	1604 KRCS 93.1 SD Sturgis, k, ID	1 9 A

The au on 11/8 was much less audible than the very workable event in Mar. '89. times this au was solid noise with no voice detected. Things got better as the au weakened, but was unable to ID much. The Onkyo T-9090 works better on au than the MR-78. In super narrow, the MR-78 has a hard time with the already distorted au, but you can always switch to narrow, and it well work just fine. It's just that the Onkyo is a bit more selective than the MR-78's narrow mode. Thanks to all who helped with unIDs over the past year. 73s.

Pat Dyer WASIYX, 5315 Silvertip Dr., 78228-2744							
June 1991 (CST)	1504 WGUF 92.7 FL Marco						
Odine asset Company	1517 WLVE 93.9 FL Miami Beach						
2: (Es)	1520 WNHW 92.5 NC Nass Head						
0800 WVPN 88.5 WV Charleston	1523 WZTA 94.9 FL Miami Beach						
1200 KLOZ 92.7 MO Eldon	1527 WRMF 97.7 FL Paim Beach						
1202 KDMG 103.3 IA Pella	1533 WKPX 88.5 FL Sunrise						
2202 (12110 300)	1554 WKTC 96.9 NC Goldsboro						
3: (Es)	1617 WLHN 97.9 IN Anderson						
0725 WMHK 89.7 SC Columbia	2149 KYGO 98.5 CO Denver						
0727 WHLZ 92.5 SC Manning	2151 KTAK 93.9 WY Riverton						
0731 WAAS 93.5 SC Columbia	2153 KLZY 92.5 WY Powell						
0738 WKOO 98.7 NC Jacksonville	5: (Es)						
0746 WMXF- 96.5 NC Laurinburg	1025 TG 88.5 Gua						
.0747 WKML 95.7 NC Lumberton	1025 TG 88.1 Gua Guatemala City						
0749 WAPW 99.7 GA Atlanta							
0751 WZFX 99.1 NC Whiteville	6: (Es)						
0754 WPCH 94.9 GA Atlanta	1759 KGNU 88.5 CO Boulder						
0834 WFDD 88.5 NC Winston-Salem	1805 KTDB 89.7 NM Ramah						
0841 WNCW 88.7 NC Spindale	1809 KLZY 92.5 WY Powell						
0859 WPMW 92.7 WV Mullens	1320 KBPI 105.9 CO Denver						
0914 WHUB- 98.5 TN Cookeville	1833 KMGW 94.5 WY Capser						
0919 WWLV 94.5 FL Daytona Beach	1835 KJYE 92.3 CO Grand Junction						
0924 WWKA 92.3 FL Orlando	1836 KDHT 92.5 CO Greeley						
0928 WHTQ 96.5 FL Orlando	1855 KHOW- 95.7 CO Denver						
0932 KHYS 98.5 TX Port Arthur (tr)	1908 KKFM 96.5 CO Colorado Spas						
0953 WPAP 92.5 FL Panama City	1911 KMTS 92.7 CO Glenwood Spgs						
0957 WQIK 99.1 FL Jacksonville	1914 KYCS 95.1 WY Rock Springs						
1001 WFSY 98.5 FL Panama City	1919 KRAI- 93.7 CO Crais						
1252 WTLG 88.3 FL Starke	1933 KQSW 96.5 WY Rock Springs						
1259 WJFR 88.7 FL Jacksonville	2000 KSMT 102.3 CO Breckenridge						
1315 WMNF 88.5 FL Tampa	KRYT 107.9 CO Pueblo						
1402 WNCM 88.1 FL Jacksonville	2016 KRLN-103.9 CO Canon City						
1406 WGMK 106.3 GA Donaldsonville	2020 KIMN 107.9 CB Fort Collins						
1408 WLYU 92.5 GA Lyons	2052 KCGY 95.1 WY Laramie						
1409 WVOH- 33.5 GA Hazlehurst	- (D.)						
1411 WKXH 104.3 GA Alma	7: (Es) 0903 KRXT 98.5 TX Rockdale (tr)						
1412 WNCT-107.9 NC Greenville	DUZZO IXIXI						
1419 WHTK 99.7 SC Port Royal	0320 111011						
1425 WXTC 96.9 SC Charleston	1205 WMCU 89.7 FL Miami						
1428 WRNS 95.1 NC Kinston 1435 WTDR 96.9 NC Statesville	9: (Es)						
1400 11211	1815 WGNV 88.5 WI Milisaore						
2400	1010 4044 0010 41						
	12: (Es)						
1443 WWMY 94.5 NC Eden 1447 WZMQ 103.9 FL Key Largo	0612 KLZY 92.5 WY Powell						
1456 WQSM 98.1 NC Fayetteville	M618 KSBT 96.7 CO Steamboat Sps						
1456 WUSH 50.1 ND Payerteville 1457 WCMQ- 92.3 FL Hialeah	0619 KRDO- 95.1 CO Colorado Spas						
AA.43/ WORLD 32.3 FL FITATEAN	שניים שניים שניים שניים שניים שניים						

SOUTHERN FM DX June 12: (Es)			Dye	r, cont.		JANUARY 1992
0620 KPBI 105.9	CO	Denver		0956 WMNF 88.5	FL	Tampa
Ø621 KILO 93.9	CO	Colorado Spas		1022 WTTS 92.3	IN	Bioominston
0622 KSMT 102.3	CO	Breckenridge		1049 KUBO 88.7	CA	
Ø623 KRYT 107.9	CO	Pueblo				Calexico
0629 K203AT 88.5		Westcliffe		1054 KCHV 93.7	CA	Coachella
				1058 KKBT 92.3	CA	Los Anseles
0630 KSPK 102.3	CO	Walsenburg		1059 KACE 103.9	CA	Inglewood
0640 KPRN 89.5	CO	Grand Junction		KKGO 105.1	CA	Los Angeles
Ø652 KQIX 93.1	CO	Grand Junction		1100 KLOS 95.5	CA	Los Anseles
Ø655 KEKB 99.9	CO	Grand Junction		1102 KODJ 93.1	CA	Los Anseles
0658 KJYE 92.3	CO	Grand Junction				
0701 KCIC 88.5	CO	Grand Junction		1103 KWVE 107.9	CA	San Clemente
Ø742 KZIQ- 92.7	CA	Ridsecrest	- 1	1105 KZLA 93.9	CA	Los Angeles
			ì	1106 KOLA 99.9	CA	San Bernardino
0830 KKFR 92.3	AZ	Glendale		(13:)		
0831 KDKB 93.3	AZ	Mesa	- 1	1110 XHRM 92.5	RON	TiJuana
0832 KOOL- 94.5	AZ.	Phoenix		KAVS 97.7	CA	MoJave
0835 KMEO- 96.9	AZ	Phoenix		1112 KULE 107.9		
WEOW 92.5	FL	Key West	1		nz	Chandler
Ø839 KTEP 88.5	TX	El Paso	4	1113 KPWR 105.9	CA	Los Angeles
Ø843 XHRM 92.5		Tijuana		1122 KOOL- 94.5	AZ	Phoenix
	AZ	Yuma	1	KRMX 94.9	CA	San Dieso
KJOK 93.1				KGMX 105.3	CA	Lancaster
Ø844 KTTI 95.1	AZ	Yuma	1	1132 KZIQ- 92.7	CA	Ridgecrest
0845 KQEZ 103.9	AZ	Coolidae	1	1141 KLDA-104.9	CA	Ridsecrest
XHNI 105.1	SON	Nosales		1148 KRAI- 93.7	CO	Crais
0851 DUG 108.8	AZ	Douglas	j			
0926 KRCY 105.9	AZ	Kingman.	1	1156 WIAA 88.7	MI	Interlochen
(06-12-91:) (Es)			i	1157 KEYV 93.1	NV	Las Vegas
	CA	San Diego	- 1	1200 KFSI 88.5	MN	Rochester
			}	1204 WERN 88.7	WI	Madison
0936 KMLE 107.9	AZ	Chandler	ŀ	1209 XHMMF 92.3	BCN	Mexicali
KKLQ-106.5	CA	San Dieso	I	1218 KFOX 93.5	CA	Redondo Beach
0340 KZLA 93.9	CA	Los Angeles	ı	KNJO 92.7	CA	Thousand Daks
KTWV 94.7	CA	Los Angeles				
0942 KBBY 95.1	CA	Ventura	- 1		IL	Effinsham
0944 KPWR 105.9	CA	Los Angeles		1234 KPAH 52.7	NV	Tonopah
0947 KCMJ- 92.7	CA			1238 KRZE- 97.5	CA	Ontario
		Indio		1259 WLAB 88.3	IN	Fort Wayne
0949 KQYN 95.7	CA	29 Palms	1	1303 WLLZ 98.7	PII	Detroit
0951 KJLH 102.3	CA	Compton		1316 WHMI- 93.5	MI	Howell
0952 KACE 103.9	CA	Inslewood		1318 WTGV 97.7	IN	Sandusky
0953 KKGO 105.1	CA	Los Angeles	1	1323 WZDW 97.7	IN	Goshen
0956 KCDZ-107.7	CO	29 Palms	- 1	1329 WLQI 97.7	IN	
	CA	San Clemente	1			Rensselaer
0958 KWVE 107.9	CA	Los Angeles	1	1332 WVIC- 94.9	MI	Lansing
1001 KGB 101.5	CA	San Diego	- 1	1337 PJFM 93.7	MI	Grand Rapids
KCHV .53.7				1405 WLDY- 92.7	WI	Lasysmith
tone Komx 105.3	CA	Coachella		1412 WARE 97.7	WI	Rice Lake
	CA	Lancaster		1413 KCZY 92.7	IA	Osase
1011 KJUL 104.3	NV	North Las Vesas	+	1414 KDAL- 95.7	MN	Duluth
1014 KEYV 93.1	NV	Las Vesas	- 1	1454 WGNV 88.5	WI	hilladore
1017 KLOS 95.5	CA	Los Angeles		1627 KLJC 88.5	MO	Kanasas City (ms)
1019 KXEZ 98.7	CA	Los Angeles		2:37 KEZJ 95.7	d1	
1021 KVWM- 93.5	AZ	Show Low	î			Twin Falls
1023 KPLM 106.1	CA	Paim Springs		1739 KCPX 98.7	UT	Salt Lake City
1007 KRLV 106.5	NV	Las Veras		1805 KXAZ 93.5	AZ	Pase
			1	1810 KZEZ 93.5	UT	St. George
1030 KFFG 95.1	CA	San Bernardino	- 1	1821 KCEP 88.1	NV	Las Vesas
1035 KLJA-104.9	CA	Ridgecrest	- 1	1829 WMMZ 93.7	FL	Ocara
1040 Kinz- 97.9	CO	Cortez	- 1	1830 WWLV 94.5	FL	Daytona Beach
1042 KAHM 102.1	AZ	Prescott	- 1	1832 WHTQ 96.5	FL	Orlando
1045 KZEZ 93.5	UT	St. George				Orlando
1052 KWNR 95.5	NV	Henderson	- 1	1836 WWKA 92.3		
1055 KPAH 92.7	NV	Tonopah			FL	Orlando
1127 KCEP 88.1	NV	Las Vesas	- 1	1845 WUCL 105.9	FL	De Land
1515 WCMQ- 92.3	FL	Hialeah	1	1852 WRMF 97.9	Ft.	Paim Beach
				1953 WKTK 98.5	FL'	Crystar Sager
	FL	Homestead		1854 WOMX-105.1	FL	Orlando
1534 WMCU 89.7	FL	Miami		1855 KXEZ 98.7		Los Angeles
1550 WKI8, 99.9	FL	Boca. Raton		1859 WZTU 104.1		Cocoa Beach
1554 WLVE 93.9	FL	Miami Beach		1900 WIRK 107.9	FL	
1555 WZTA 94.9	FL	Miami Beach		1901 WMLD 104.9		West Palm Beach
WLYF 101.5	FL	Miami			FL	Havana
	FL	Napies		1903 WYUU 92.5	FL	Safety Harbor
	FL	Napies		1910 WCVU 94.5	FL	Naples
1600 WAXY 105.9	FL	Fort Lauderdale		1911 WBGF 93.5	FL	Belle Glade
				1914 WLRQ- 99.3	FL	Cocoa
1604 WKRY 33.5		Key West		1919 WLVE 93.9	FL	Miami Beach 19
1606 WPOW 96.5	FL	Miami	1	1922 WMTX- 95.7	FI.	Clearwater 23

SOUTHER	en fm i	<u>ox</u>			Dyer,	cont.					JANUARY 1992
16-15-	91:)	(Ea)						110.50	F377 7	00	
1929 W			FL	Lehigh Acres		1		WAIA	93. 3	GA	St. Marys
1933 W		92.5				1	0317	WEHT	101.5	F"L	Quincy
			FL	Key West		Į	0919	WORE	92.5	GA	Folkston
1937 W			FL	Sarasota		1	0920	WHJX	101.5	GA	Brunswick
1945 W			FL	Key Largo				WHCJ	80.5	GA	Savannan
1951 W	OVV	95.5	FL	Fort Pierce				WLPT	88.3	GA	Jesup
1953 W	INK-	96.9	FL	Fort Myers		1		WKCL	91.5		
1955 W	KIS	99.9	FL	Boca Raton						SC	Ladson
				W C C C C C C C C C C C C C C C C C C C				WHLZ	32.5	SC	Manning
14:								KSDS	88.3	CA	San Diego
	CIDIT	00 5	00	Manuel III		1	1259	WAIR	92.5	MI	Atlanta
0927 K		88.5	CA	Mission Vielo)	1	1302	WIAA	88.7	MI	Interlochen
Ø323 XI		92.5		Tijuana		1	1305	WGVU	88.5	MI	Allendale
0940 K		92.3	CA	Los Angeles		l	1307	KALA	88.5	IA	Davenport
Ø346 K	7.LA	93.9	CA	Los Anseles		{	1327	WOZZ	93.5	WI	New London
0951 K	PWR 1	05.9	CA	Los Anseles		ł		WJPD-		MI	Ishpeming
0959 KI	FOX	95.3	CA	Redondo Beach	1	Į.		WGCA	88.5	IL.	Quincy (ms)
1023 K		88.3	CA	San Diego		ļ					
1026 XI				Tijuana		1		WAMU	88.5	DC	Washington
1052 K			CA			1		WLL.Z	98.7	MI	Detroit
				Ridsecrest				WMX1)	92.3.	MI	Detroit
1108 K			CA	Lancaster			1754	WBNH	88.5	ŢĹ	Pekin
1112 Ki			CA	Mojave		1	1759	MONA	89.7	TL	Kankakee
1124 KI				Los Anseles			1857	WDCD-	29.7	GA	Cochran
		94.7	CA	Los Angeles				WECH	88.5	SC	Charleston
1128 K			CA	29 Palms							
1131 K	CMJ-	92.7	CA	Indio			30:	(Es)			
	BIG 1			Los Angeles				KCEP	88.1	NV	Las Vesas
1137 KI		95. 1		Ventura						INA	ras vesas
1139 KI			CA	Goleta		1	July	1991	(CST)		
	PLM 1					1					
				Palm Springs		1	1: (Es)			
1142 KI			ON	Ontario			0739	KOEL-	92.3	IA	Delwein
1156 K			CA	Long Beach				WLDY	92.7	WI	Ladysmith
1200 KI	LON .	88.1	CA	Long Beach		1		KJJY-		IA	Ankeny
1225 XF	HMMF	92.3	BCN	Mexicali				KFSI			
1.252 KI	DHT	92.5	CO	Greeley (ms)					88.5	MN	Rochester
								WBEZ	31.5	IL	Chicago
24: (E	(0)							MMSU	89. 7	MN	Mankato
1650 K		99. 9	CA	Canaa Dani			0809	KDDR-	32.3	ND	Dakes
1657 KI				Santa Barbara	1		0826	KPLO-	34.5	SD	Reliance
		95.5	CA	Los Angeles		1	0833	KKOK	95.7	MN	Morris
	HMMF			Mexicali		1	0836	KLDZ	95.1	NE	Lincoln
1658 K		96.5	CA	San Dieso				KBYZ	96.5	ND	Bismarck
1659 K		98.7	CA	Los Angeles				KELO-		SD	Sioux Falls
1700 KF	FOX	93.5	CA	Redondo Beach	1	1		KSQY	95. 1	SD	
1703 KI	LON	88.1	CA	Long Beach		1					Deadwood
1713 XI	HSOL	89. 9	CA	Mexicali				KAML-		WY	Gillette
1715 KF			CA	San Diego				KCGY	95. 1	WY	Laramie
1718 XI		92.5					0917	KQLT	103.7	WY	Casper
				Tijuana			0923	KBPI	105.9	CO	Denver
1.72Ø KI		94.9	CA	San Dieso		1	0930	KFBQ	97.9	WY	Chevenne
		88.3	CA	San Dieso				KYCS	95.1	WY	Rock Springs
1722 KI	KLQ-1	06.5	CA	San Dieso		1		KMGW	94.5	WY	Casper
- 1.700 K.	JOY 1	Ø3.7	CA	San Dieso				KJYE	92.3	CO	Grand Junctio
21.57 KH	KBT	92.3	CA	Los Angeles		1		KRAI-			
							4346	VKHI-	33.7	CO	Crais
25: (Es	3)						E.	(P-)			
0759 WI		92.5	SC	Greenville		1		(Es)			_
						1		WAUW	88.3	NC	Erwin
		88.3	NC	Boiling Sprin	195			WKSU	89.7	DH	Kent
DEGO WI		92.3	NC	Asheboro			0742	WJPD-	92.3	MI	Ishpemina
Ø809 W		98.7	NC	Jacksonville			0745	WCOL-	92.3	OH	Columbus
M812 KI			TX	Temple (tr)				WYSU	88.5	OH	Youngstown
Ø829 W.	JDJ	93.9	KY	Burnside							Milladore
				Lexinston			5000	77.07.79	00.0	14.7	
0841 W.							8: (Ee)			
(25:)									00 7	MT	T-1
	MENN	0.5	14.1	No.				WJPD-			Ishpeming
0955 KM				Miles City				WIAA			Interlochen
1037 KL	LZ.Y	97.5	WY	PowerI				WZTR		WI	Milwaukee
(F	. \						1035	WLHT	95.7	MI	Grand Rapids
29: (Es							1038	WKHQ-	105.9	MI	Charlevoix
0341 W	AKA !	92.3	17L	Ortando				WLTO			Harbor Spring
0847 W	HTQ S			Orland				WGFM			Cheboysan
0348 WL				Miami Beach		1		WYSY			Aurora
0855 WM		38.5		Tampa		1					Waupaca
~-				1 cmpd			1003	MDUX-	34. /	MI	waupaca

SOLE	HERN FM	DV					
July					Dyer, cont.		JANUARY 1992
	WDEK	92.5	IL	De Kalb	1716 WRMF 97.9	FL	Palm Beach
1100	S WEMT	98.7	IL	Chicago	1718 WWKA 92.3 1722 WGNE- 98.1	FL	Orlando
	WUPS	98.5	MI	Houghton Lake	1728 WKQL 96.9	FL	Titusville
	4 WOLX	94.9		Baraboo	1729 WAPE 95.1	FL	Jacksonville Jacksonville
	WDOR-			Sturgeon Bay	171 WINT 92.5	FL	Panama City
	4 WYCA	92.3	IN	Hammond	1737 WBYZ 94.5	GA	Baxley
	WAPL WGGN	97.7	IW OH	Appleton	1.743 WEFM 105.7	GF	Ashburn
	WATZ	99.3	MI	Castalia Alpena	1747 WOZY 95.9	GA	Dublin
2 2 2 2	WAUN	92.7	WI	Kewaunee	1749 WKKZ 92.7	GA	Dublin
1123	WNBY-		MI	Newberry	1752 WEWI 92.3	GA	Montsomery
1128	5 WUPQ	97.9	MI	Newberry	1754 WIJY 107.9	SC	Savannah Hilton Head Is
	WVIC-		MI	East Lansing	1759 WEXH 106.1	SC	Hilton Head Is
	WGRD-		MI	Grand Rapids	1004 WJCL- 96.5	GA	Savannah
	WFBE	95.1	MI	Flint	1819 TTOI 108.9	AL	Тгоу
	7 WSTD 2 WDZZ	96.9 92.7	- MI	Standish Flint	1020 WTQR 104.1	NC	Winston-Salem
	WRIZ		MI	Lakeview	1923 WCGQ 107.3	GA	Columbus
	WOLR		MI	Kalamazoo	1006 WHLZ 92.5	SC	Manning
	WOOD-		MI	Grand Rapids	1000 WMCG 104.9	SC	Milan
	WUGN	99.7	MI	Midland	1844 NRDX 106.5	NC	Greenville Salisbury
	. WGVU	88.5	MI	Allendale	2000 WORF 92.5	GA	Folkston
	WBWI	92.5	WI	West Bend	WFSY 98.5	FL	Panama City
1405	WCPE	89.7	NC	Raleigh	2001 WGLF 104.1	FL	Talahassee
10:	(Es)				19s (Es)		
	WKPX	88.5	FL	Sunrise	0751 KZLA 93.9	00	lu n
				CONT De	0751 KSBR 88.5	CA	Los Angeles
	(tr)				0803 KPWR 105.3	CA	Mission Viejo Los Angeles
1326	XHSRO	-92.5	NL	Monterrey	0205 KKBT 92.3	CA	Los Angeles
17.	(Es)				0815 KPFK 90.7	CA	Los Angeles
	WECH	00 =			0950 XHMME 92.3	BCN	Mexicali
1123	WELH	88.5	SC	Charleston		BEN	
18:	(Es)				0957 XHRM 92.5		Tijuana
0152	WRVL	88.3	VA	Lynchburg	1058 WYSU 88.5	OH	Youngstown
0449	KESD-	88.3	SD	Brookings	1009 WOSU 89.7	IN	Columbus
	WGCA	88.5	IL	Quincy	1550 WRNS 35.1	NC	Fort Wayne Kinston
	WGVU	88.5	MI	Allendale	1605 WMUU- 94.5	SC	Greenville
	KDCR WBNH	88.5	IA	Sioux Center	1618 WKRR 92.3	NC	Asheboro
6006	WCBR-	88.5	IL	Pekin	16.74 WXBQ 96.9	TN	Bristol
0900	KEYA	88.5	ND	Arlington Hts Belcourt	HTFM 98.5 1627 WPVR 94.9	TN	Johnson City
0306	KTWA	92.7	IA	Ottumwa	1627 WPVR 94.9	WV	Roanoke
	KOEL-		IA	Delwein	1630 KOEL- 92.3	IA	Charleston Delwein
	WLDY-		WI	Ladysmith	1634 WTDR 96.9	NC	Statesville
	KLZY	92.5	WY	Powell	WPEG 97.9	NC	Concord
	WYUU	92.5	FL	Safety Harbor	1641 KISD 98.7	MN	Pipestone
	WMTX-	98.9	FL	Orlando	1644 KLSS 106.1	IA	Mason City
	WXTB	97.9	FL	Clearwater Clearwater	1646 WBKR 92.5	KY	Owensboro
	WZTU 1		FL	Cocoa Beach	1649 WRRR- 93.9 1651 WKOO 98.7	WV	St. Marys
1626	WMMZ	93.7	FL	Ocara	1650 WTLC 105.7	NC IN	Jacksonville
1629		88.5	FL	Tampa	1653 WLBC-104.1	IN	Indianapolis Muncie
1630	WJCT-		FL	Jacksonville	1656 WDJQ 92.5	ОН	Alliance
1639	WUSF	89.7	FL	Tampa	1657 WXXP 97.9	IN	Anderson
1641		95.7 92.5	GA FL	Valdosta	1700 WAKO 103.1		Lawrenceville
	WJST-		FL	Key West Port St. Joe	1711 NUPS 98.5		Houshton Lake
1646				Palatka	1714 WOOD-105.7 1715 WAIR 92.5		Grand Rapids
	WTBB		FL	Bonifay	1715 WAIR 92.5	IN	Atlanta Crown False
1547				Talahasssee	1717 WYCA 92.3		Crown Foint Hammond
1654		94.9		Millen		MI	East Lansing
1557	WINK-			Fort Myers		MI	Grand Rapids
1657 1658				Naples			
	WSGL 1			Naples Naples			Madison
	WUSA-1			Tampa	1720 WART 101.9		Dundee
1707	WOVV	95.5		Fort Pierce			Nass Head
1712	WFLZ	93.3		Тамра			Urbana Golden Valley
					71.0		OZ.OZN VALIEV

		Dunn and	JANUARY 1992
SOUTHERN FM DX		Dyer, cont	
July 19: (Es)			CA Mission Vielo CA Cambria
1738 WPAY 104.1 DH	Portsmouth		CA Paso Robies
1746 CHTZ 97.7 ON	St. Catherines		CA Mojave
1745 WBWI 32.5 WI	West Bend	2915 KXXZ 95.3	CA Barstow
1757 WMYG 96.9 PA	Braddock		CA Ridgecrest
04: (Pa)			Bre Belize City
24: (Es) 0700 WKPX 88.5 FL	Sunrise		SD Deadwood
0701 WCMQ- 92,3 FL	Hialeah		SD Sturming SD Pierre
0708 WLVE 93.9 FL	Miami Beach		SD Pierre ND Bismarck
0712 WBGF 93.5 FL	Belle Glade		ND Bismarck
			NE Rinsworth
25: (Es)		1424 KSCR- 93.5	MN Benson
0848 WCMQ - 92.3 FL	Hialeah	1437 KRKZ 93.5	OK Altus
0350 WKPX 88.5 FL 0858 WMTX- 95.7 FL	Sunrise Clearwater	(Fa)	
0901 WMNF 88.5 FL	Tampa	11: (Es)	
0301 4444 (3010 12	1 (11) 1 (6)	1654 WSSX 95.1 1659 WFCH 88.5	SC Charleston SC Charleston
29: (Es)			SC Charleston GA Cochran
2159 KCRB 88.5 MN	Bemidji		FL Jacksonville
. (=)			FL Key West
31: (Es)	_	1900 WMCU 89.7	FL Miami
1538 WFCH 98.5 SC	Charleston	1955 CMHW 93.5	Cub Santa Clara
1559 WMHK 89.7 SC 1605 WKOO 98.7 NC	Columbia Jacksonville	(=)	
1607 WCMQ- 92.3 FL	Hrateah	12: (Es)	
WKML 95.7 NC	Lumberton	1830 WCLQ 89.5	W. Wausau
1609 WRNS 95.1 NC	Kinston		WI Baraboo MN Golden Valley
1613 WKTC 96.9 NC	Gerdsbore	1927 KJJY- 92.5	IA Ankeny
1622 WNHW 92.5 NC	Nass Head	1.02	
1635 WLAP- 94.5 KY	Louisville	13: (Es)	
1638 WKRR 92.3 NC 1649 WCOL- 92.3 OH	Asheboro	1419 WJNR 101.5	MI Iron Mountain
1649 WCOL- 92.3 OH 1659 WZRQ 96.5 OH	Columbus Hamilton		MI Ishpemine
WHRZ 97.7 KY	Providence	4 1	WI Milladore
WMMG- 93.5 KY	Brandenburg	23: (Es)	
1701 W)KY-104.1 IN	Evansville	1455 WVPN 88.5	WV Charleston
1705 WCBL-102.3 KY	Benton	1459 WZAC- 92.5	WV Danville WV Buckhannon
1706 WZKS 103.9 KY	Louisville	1500 WBTQ 93.5	WV Buckhannon WV Fairmont
1711 WOFX 94.9 DH 1721 WJIE 88.5 KY	Fairfield Okolona	1505 WVSC- 97.7	PA Somereset
1320 WTTS 92.3 IN	Bloomington	1507 WCMI 32.7	KY Catlettsburg
	Tijuana	1509 WDSY 107.9	PA Pittsbursh
August 1991 (CST)		1517 WXIL 95.1	WV Parkersburg
1102020 2222 (002)		1513 WPAY-104.1	OH Portsmouth
1: (Es)		1514 WKQS 9E.5	PA Johnstown OH Akron
0822 WHWC 88.3 WI	Menomonie	1515 WNCI 97.9	OH Akron OH Columbus
0830 KBEM 88.5 MN	Minneapolis	1518 WNCX 98.5	OH Cieveland
2: (Es)		1519 WOVK 38.7	WV Wheeling
1920 KLOS 95.5 CA	Los Angeles	1520 WWSW- 94.5	PA Pittsbursh
1921 KBIG 104.3 CA	Los Angeles	1523 WCEZ 107.9	OH Delaware
1923 KKBT 92.3 CA	Los Angeles	1527 WTTS 92.3	IN Bloomington
1925 KCLB- 93.7 CA	Coachella	WAMO 105.9	PA Pittsburgh IN Indianapolis
1928 KTWV 94.7 CA	Los Angeles	1531 WVKS 92.5	OH Totedo
1931 KFOX 93.5 CA	Redondo Beach	CKSY 95.1	ON Chatham
1936 KSBR 88.5 CA	Mission Viejo	1534 WLBC-104.1	IN Muncie
1944 XHMMF 92.3 BCN 1949 MRJC 91.5 BCN	Mexicali Mexicali		OH Port Clinton
1951 XHRM 92.5 BCN	Tilinana		OH Ottawa
1955 KRMX 94.9 CA	San Diego	1540 WCLR 95.7	OH P.qua
		1543 WCVO 104, 9	
7: (Es)		1	PA Du Bois
	l Tijuana	1546 WJXQ 106.1	MI Jackson
0848 KFOX 93.5 CA	Redondo Beach	1547 WNWN 98.5	MI Coldwate:
0849 KPWR 105.9 CA 0853 XETRA-91.1 BCN	Los Hnaeles I Tijuana	1551 WCRZ 107.9	
0854 KZLA 93.9 CA		1554 CKMR 93.9	
0857 KKBT 92.3 C9	Los Angeles		IL Effingham NY Buffalo
0904 KLOS 95.5 CA		1601 WILC 105.7	
26			III IIII GIIGPO. 15
A.V			

SOUTHE	ERN FM DX		Dyer	, cont	•			JANUARY	1992
Aug. 2	3 (Es)			Sept	: 1971				
1605	CHRE 105	. 7 ON	St. Catherines						
1607			Madison	্ডঃ ((Es)				
1612			Fort Wayne	1349	WATER	88.5	DC	Washington	
	WPRE- 94		Prairie du Chien	2059	WVPN	88.5	WV	Charleston	
1612			Hamilton	2122	WZDQ	92.3	KY	Hyden	
	WWIZ 103		Mercer		WXCC	96.5	WV	Williamson	
	WRRR- 93		St. Marys		WPFW	89.0	DC	Washington	
			Medina		WKPR	90.0	NC	Asheboro	
1524							140	Manegere	
	WBBY 103		Westerville						
	WQAL 104		Cleveland	Oct	1931				
1631			London						
	WLQR 101		Toledo	_i: (Es)				
1541			Cleveland	1755	WOZN	98.7	FL	Key West	
	WKKG 101		Columbus	1756	WE OW	92.5	FL	Key West	
1554			Fairfield	1801	WKRY	93.5	FL	Key West	
	WRKU- 95		Grove City	1802	WCMG-	92.3	FL	Hialeah	
	WVN0 105		Mansfield		WMCU	89.7	FL	Miami	
1705	WSWO 102		Wilmington	1817	WGYL	93.5	FL	Vero Beach	
1720	WSHH 99	.7 PA	Pittsburgh	1843	WRMF	97.9	FL	Palm Beach	
1725	WLAP- 94	.5 KY	Lexinston	1850	WKPX	88.5	FL	Sunrise	
1727	WINC- 92	.5 VA	Winchester	1920	WAGE	93.5	FL	Belle Glade	
1729	WEMM 107	.9 WV	Wheeling						
1742	WTNJ 105	VW E.	Mount Hope	14:	(tr)				
1748	WXCC 96	.5 WV	Williamson	0728	WREH	88.3	LA	New Orleans	
1750	WOLA 104	.9 TN	La Follette						
	UKGO 10E		Cumberland -	18:	(tr)				
	WOHY 95		Prestonsburg	0025	WYNK-	101.5	LA	Baton Rouge	
	WLIL- 93		Lenoir City		WEKW-		LA	Laptace	
	WXTR-104		Waldorf		KLSA	90.7	LA	Alexandria	
	WRVQ 94		Richmond	0.40	KLDN	88.9	TX	Lufkin	
	WXIS 100		Erwin	01747	KGRM	91.5	LA	Grambling	
		NV C.S	Charleston	0,4,	KDAD	89.9	LA	Shreveport	
	WRSF 105		Columbia		1 (D) PHS:	03. 3	LH	DuteAsbolt	
(17)2.0			Farmville	20:	(Es)				
1000	WFLO- 35				WKTX	on re	171	C	
HBNA	WTOR 104		Winston-Salem Easley		KYRR	93.3	FL	Sunrise	()
4.077	WLWZ 103				MMELL	33. 7	TX	Port Arthur	(I. P
		5.5 VA	Williamsburg		WHOLT	88.5	FL.	Miami	
		5.3 NC	Statesville				GA	Savannah	
		7.9 NC	Gaston		USSX	95.1	50	Charleston	
	WKHX-101		Marietta		WWWZ	93.5	SC	Summerville	
	WBT- 107		Charlotte Asheboro		WXTC	35. 9	50	Charleston	
				1223	WECH	88.5	SC	Charleston	
	WZLI 100		Toccoa	Nov :	1991	(CST)			
	WNND 103		Fuquay						
1.9000		2.5 NC	Henderson	5: (E	(s)				
1000		3.9 NC	Burlington Norfolk	1426	WFGM	97.9	WV	Fairmont	
		5.7 VA		1428	WZAC-	92.5	WV	Danville	
			Hickory Concord	1432	WBES-	94.5	WV	Dunbar	
		7.9 NC		1433	WEMM	107.9	WV	Huntington	
		5.1 NC	Kinston		WKGO		MD	Cumberland	
		5.9 NC	Goldbsoro		WBTQ	93.5	WV	Buckhannon	
	WJMX-100		Cheraw		WXCC	96.5	WV	Williamson	
	WYAI 104		Marietta		WSIG	96.9	VA	Mt. Jackson	
	WVBS- 9		Burgaw		WRVC	93.7	KY	Ashland	
		5.1 SC	Charleston		WTCR-		WV	Huntington	
		B. 7 NC	Jacksonville		WTNJ		WV	Mt. Hope	
2015	WHLZ 9	2.5 SC	Manning		WIFX		KY	Jenkins	
	(m)				WLZT		WV	Miami	
2.5%			-		WQPO		VA	Harrisonbur	9
	WRJA- 8		Sumter /		WDNE-		WV	Elkins	
1746	WSSX 3	5.1 50	Charleston		WSIP-		KY	Paintsville	
	(2.)				WKCB-		KY	Hindman	
27:			(1)		WOBG-		WV	Salem	
	XHSR0-9:		Monterey (tr)					S. Charlest	on
1115	TG 8				WJYP		MA	Charleston	
1125	TGFP- 8		Guatemala City	1021	WVAF			St. Albans	
1130	YS 9	8.5 E15	San Salvador	1500		-105.1			
1156	TG 9	8.9 Gua			WJRS		KY	Jamestown Waynesboro	
1.2990	TGRT- 8	8.8 Gua	Guatemala City		WAYZ-		PA		
1204	TG 9	4.5 Gua	1	NOV.	cont.	next mor	ich		



HAPPY NEW YEAR !!!

From your 'Time Tunnel' Editor:
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NASHVILLE, TN 37221
615-646-2000

OFF-THE-AIR PICKUPS

WHAT WERE THEY, AND WHY DID THEY EXIST?: Although there probably aren't any 'off-sir' pickups used for primary network service today, they were commonplace in rural areas in the 50s and 60s. While the major markets were served by ATST microwave feeds; stations in smaller locales often could not afford ATST's rates, or in some cases, ATST service simply wasn't available. No matter what the situation, the need for live network interconnection had to be met; and construction of a private microwave link was usually the answer.

For this account, I'll rely on memory to relate the story of how the NBC television network originally made it into North Dekota.

WDAY-tv (6) in Fargo was a primary NBC affiliate. For whatever reason, ATST service was not a viable option, so the WDAY people chose an off-the-air pickup. The first step was a tower about 30 miles from the KSTP-tv (Minneapolis) transmitter. A pair of stacked yagis received the channel 5 signal which was then fed into a microwave transmitter and relayed on to the next tower about 30 miles to the northwest...and so on...until the KSTP-tv signal arrived at the WDAY-tv studios some 200 air miles from Minneapolis.

The next segment of this system was owned by the Meyer Broadcasting Co. of Bismarck which had an off-air receiver about 30 miles west of Fargo, and about 5 microwave hops to the KFYR-tv transmitter site 10 miles east of Bismarck. Meyer later extended the system to KMOT in Minot with an off-air pickup of KFYR-tv...and to KUMV-tv in Williston utilizing an off-air pickup of KMOT.

Considering the circumstances, these privately owned off-air pickups and associated microwave systems were relatively reliable. Although the relay towers were unmanned, a warning system pinpointed trouble spots and an engineer could usually reach any relay tower in less than two hours.

HOW DID THEY WORK?: A monitor in the WDAY-tv mester control room was dedicated to the off-eir KSTP-tv microwave pickup. The engineer on duty simply watched to see when Minneapolis originations ended, then punched up the circuit to feed the Fargo transmitter.

The Bismarck crews had a more challenging setup. Economics did not allow an additional hop to get a video signal into the studios. Instead, the audio portion of the microwave receiver was fed to the studios over a telephone line to a headset in master control. The master control operator could hear..but not see..the network video source!

Using the clock, an absence of audio on the headset monitor, and intuition; the switch to NBC was made 'flying blind'. If everything down the line was on schedule, viewers were unaware of the quirks of the system. If KSTP was running late, WDAY would hold their ID on screen with no audio until NBC programming began. The guys at KFYR would assume that since they were hearing no Fargo audio..end the clock was correct

for a network 'hit'.. often punched up the off-air link only to find a huge WDAY-tv slide staring them in the face..and being transmitted in all its' glory on KFYR-tv!

COLOSSAL BLUNDERS: As you might have speculated, WDAY-tv IDs popped up frequently on KFYR-tv. That, however, wasn't all that went wrong. Every now and then the AT&T link between Chicago and Minneapolis would conk out, and KSTP-tv would display a network trouble slide sporting their call letters. This would catch everyone off guard; and as a result, KSTP would show up on all stations to the west. I should point out that KMOT and KUMV were able to monitor both audio and video from their respective off-air feeds; thus transient ID's (particularly from WDAY-tv) were seldom seen in Minot and Williston.

One weekend in the summer of 1959 I decided to drive up to Minot and Williston to take a look at the KFYR-tv satellite stations (I was employed by KFYR at the time). While in the control room at KUMV, I witnessed one of the most mind-boggling ID displays of all time. KSTP-tv had interrupted an NBC program with a severe weather warning slide (containing their logo) and was about five seconds into a voice-over description of the potential storm hazard when the WDAY crew zapped it with an ID slide of their own. Next came a KFYR-tv ID slide, then one from KMOT; and finally...the guy in Williston punched up a KUMV ID slide. All this happened within a ten second time frame...but it seemed like an eternity. It was quite a sight!

OFF THE AIR?: Perhaps the most unusual occurrence I witnessed with regard to off-air pickup operation took place in the summer of 1957. Without warning, the WDAY-tv transmitter went off the air.and stayed off! That, of course, meant a disruption of NBC service to the three stations west of Fargo. KFYR-tv popped up a trouble slide until the program director showed up with a half-hour travelogue film to kill time. The filler stuff continued for another hour, then we loaded a feature film to really eat up the time. Meanwhile the front office had been in touch with WDAY and learned that their transmitter man had found the trouble, but that they didn't have a spare part on hand. Later in the day WDAY advised us that the faulty component was indeed an odd duck...RCA didn't have a replacement either! As a result, WDAY was off the air for over two days while the elusive part was flown in from "Austria!"

While filler programming continued to grind through the film projectors in Bismarck, the master control operator noted the presence of NBC audio on his headset. What was going on? A call to the KFYR-tv transmitter engineer verified that there was NBC video on the off-mir link; but that it was from WDSM-tv (also on $\overline{6}$) in Duluth.

You guessed it! Tropo conditions were up full blast, and the 250 mile distant WDSM-tv signal was hitting the high gain off-air receiver west of Fargo like a local!

No one had run into a situation like this before...NBC was available via the Duluth signal...but could we carry it? After some frantic calls to the FCC, NBC in New York, and WDSM; we were assured that it would be OK to use the unusual source on an emergency basis as long as the signal strength was adequate.

Well, we went back to NBC via the WDSM signal at the next regular break...and with the exception of a couple of hours (when severe fading occurred) we carried the unorthodox NBC source for the better part of two days. Oddly enough, there never appeared to be any CCI from Duluth on the off-air pickup when WDAY-tv was on.

Eventually the off-air systems gave way to ATST feeds, which in turn were rendered obsolete by satellite distribution. Although a few regional networks continue to use terrestrial microwave between their affiliates; the days of the off-the-air pickup (with the exception of a few LPTV's) remain only as oddities in the pages of television history.

NEXT MONTH:

"Maple Leaf Nemories"



FRED NORDQUIST 7945 BOXFORL RD CLAY, NY 13041 DEADLINE: THE 5T

UPDATED	12/ 9/9			Α	LL-T11	ME FM S	SCURE	BUARE)								
DMTR NAME		DXI	R LOCATION		TOTAL	88-92	ES	MS	AU	USA	CN	нх	FO	TPU	YB	AS	OF:
DYER	PAT		SAN ANTONIO		2521	400	2060	65	0	44+	4	21	5	75	70	11	/30/9:
STROBEL	RA! PH	IN	MUNCIE		2016	532	654	155	6	43+	7	2	2	55	72	09	/28/9:
BUNTI!	DANNY		STILLWATER		1900		1146	4	0	48+	5	9	2	65	74	09	/01/90
ELVING	BRUCE	MN	DULUTH		1734	317	1365	9	8	47+	4	1	0	53	48	02	/07/93
EBELING	NHOL	MN	BLOOMINGTON		1674	286	973	46	83	47+	6	5	0	59	52	01	/01/91
FELA	JOSEPH	NJ	S. PLAINFIELD		1612	335	869	2	9	37+	6	0	3	47	68	10.	/12/91
BUGAJ	MIKE	CT	ENFIELD		1592	217	873	23	23	37+	5	1	2	46	74	11.	/21/91
PUGH	KEITH	AL	NEW HOPE		1590	238	811	44	3	43+	7	10	2	63	83	09	/08/90
NORDQUIST	FRED		CLAY		1573	319	776	44	59	41+	5	0	3	50	69	12	/09/9:
RIEMAN	DAVID	NY	AKRON		1377	376	417	48	24	43+	8	0	3	55	59	12	/23/90
MCCORHACK	FRED		FARGO		1339	305	990	3		48+	6	3	0	58	74	08	/03/90
SEYBOLD	BOB		DUNKIRK		1326	212	611	0	2	45	8	3	3	59	58	06	/24/90
CONIGLIO	GREG		WILLIAMSVILLE		1224	202	624	13		37+	. 8	- 1	3			-	/01/9
EBELING	JOHN	MN	PROSIT		1137	212	763	3	5	48+	9	2	0	60	75	01	/01/9:
JEFFERSON	JOHN	CA	ANTIOCH		1130	250	662	160	0	29	4	5	0	38	74	10	/17/9
BRUMFIELD	DAVE	IN	RICHMOND		897	165	325	15	0	36	4	2	2	44	81	09	/01/9.
SHOLAREK	BOB	NJ	OLDWICK		890	149	385	2	0	36+	3	0	1	41	78	02	/18/9:
HOLBROOK	HANK	MD	CHEVY CHASE		866	224	234	18	0	35+	6	0	3	45	59	i0	/05/9
MICHALEK	ALAN		SPRINGFIELD		812	106	495	0	0	36+	5	0	0	42	52	10	/01/90
OETTING	DANIEL	PA	EXTON		756	5.90	250	9	2	34+	6	Ω	0	41	77	06	/07/9:
ALLEN	DOUGLAS	CO	WOODLAND PARK		711	116	489	44	0	39	4	3	0	46	88	10	/30/9
GREENE	GEORGE		AKRON		706	54	234	0	0	33+	3	0	0				/09/9:
ROSS	ROBERT		LONDON		682	180	280	0	0	33	6	0	3	42	76	02	/11/9
BRUMFIELD	DAVE		MUNCIE		682		65	1	0	29	1	1	0	31	79	03	/01/9
HALL			BRANTFORD		503	95	10	55	2	34	4	0	1	38	90	12	/04/9
NIENAJADLY	BILL		CLIFTON		501	95	169	5	0	34+	2	0	0				/11/9
SHAFTON	RICHARD		ROCKAWAY		459	116	142	0		30+	3	0	0				/29/9
MEADE	LARRY		CHICAGO		459	85	55	6		23	2	0	0				/05/9
NOLLMAN	BILL		NORWICH		453		155	17	0	31+	9	0	1				/24/9
SITTEL	HATT		RALEIGH		330		58	G		16+	1	1	0				/09/9
HEPBURN	WILLIAM		BRAMPTON		209		83	1	6	21	2	0	1	-			/10/9
BRANDENBURG	TODD		SILVER LAKE		300		32	0	1	24	0		0				/02/9
MANCUSO	GUS		CHEVERLY		259		31	0	0	22+	0		0				/26/9
MANCUSO	GUS		BIRCH RIVER		228	20	4	.0	0	15	0	0	0				/26/9
HAWK	HIKE		OHAHA		211	36	4	1	0	9	1	0	0				/19/9
RENFREW	JIM		ROCHESTER		185	37	2	0	0	6+	2	0	0	20	9	06	/15/9
MEADE	LARRY	KY	PRICE		165	35	0	14	0	30+	0	0	0	11	79	09	/05/9
WISELER	FRANK	PA	ERIE		162	23	2	0	0	8	1	0	0	9	64	08	/20/9
ONYSCHUK	KEN	IL	RIVERDALE		141	30	0	0	0	7	0	٥	0	7	68	06	/30/9
				-	VERI	FIED.											

COLUMN DEFINITIONS: are as follows: Total = Total number of FM stations logged from DXer's location (All loggings should be received within 25 mile radius of this location to count.)

Freq. changes count as a station, call letter changes DO NOT count. Also count a station only once regardless if logged by different propagation modes. 88-92 = All stations logged from 88.0 to 1.99 Mhz. Es = Total number of stations logged via E-skip. MS = Total by meteor scatter. Au = Total via Aurora. USA = Total number of states and the "+" = Washington, DC. CN = Number of Canadian provinces logged. MX = Number of Mexican states logged. FO = Number of foreign countries, but not Canada or Mexico. TPU (Total number of political units) = Sum of USA CN MX and FO. YB = The year you began DXing from this location. There groundrales for computing log totals are included in AUGUST 88 VUD Page 48. Date cutoff: 1989. 73 - Fred

ABOVE STATS REPRESENT MOST NO. OF STATIONS FOR EACH POLITICAL UNIT (FU) LOGGED FROM A SINGLE SPECIFIED DXER'S LOCATION. FIRST AND SECOND PLACE DXERS ARE LISTED DNLY. OTHERS THAT ARE TIED FOR SECOND ARE NOT LISTED....FJN.

Following up on my Oct 91 VUD column concerning requests for printouts of Distances between DXer's location and cities in North & Central America (and Caribbean). I've refined the program to print (on 10 pages) distances (in miles) for 4653 cities in 79 political units, including all locations listed in the WTFDA North Emerican IV Data Base and FM Atlas (Part I Listing) as well as Caribbean countries with TV/FM stations listed in WRTVH. A \$2.00 domation to cover costs of mailing and printing will get you your personalized listing. Also include with your request the Great Circle Coordinates of your DX location. 73 - Fred.

STATES STATS

U	# DXER	#	DXER I	PU	# DXER		DXER I	PU	# DXE		DXER		KEY 1	TO DXER I	INITIALS/LOCA	ATIO	Эн
L.	106 KPU-	56	JEB- 1	LA	72 RSA-		BEL2 I	Он	220 RST-			,	ANI-	ALAN	MICHALEK	ĦΑ	SPRINGFIELD
1K	11 JJE3	0	None I	ME	40 RST2	30	KPU- I	OK	122 DBU-	- 51	FNO-	i	BEL2	BRUCE	ELVING	MN	DULUTH
Z	49 PDY-	36	JJE2 1	HD	54 JFE-	48	GRA- I	DR	31 JPI-	- 29	FMC2	1	DAL-	DOUG	ALLEN	CO	WOODLAND PARK
R	86 DOD-	61	VEA-	ma	94 RST2	77	MBU- i	PA	157 DNI-	133	FN0-	1	DBR-	DAVE	BRUMFIELD	IN	MUNCIE/RICHMOND
A	360 JJE2	126	PDY- I	MI	156 RST-	139	FRE- I	RI	14 WNO-	- 12	RST2	1	DBU-	DANNY	BUNTIN	ΘK	STILLWATER
0	107 DAL-	69	JJE2 1	BN	169 JEB-	155	JEB2 i	SC	54 MSI	53	PDY-	1	DNI-	DAVID	NIEMAN	NY	AKRON
3	49 MBU-	42	AMI- I	MS	78 KPU-	64	THC- I	SD	39 KPU-	- 35	JJE2	1	DOD-	DAVID	ODELL	AR	LITTLE ROCK
E	13 DOE-	11	JFE- 1	#8	118 FME1	84	DBU- I	TN	110 KPU-	93	JAY-	1	DOE-	DANIEL	OETTING	PA	BROONALL
	152 PDY-	146	DBU- I	BT	29 JJE2	25	JPI- I	TX	303 PDY-	211	RSA-	1	FRC-	FRED	MCCORMACK	ND	DES LACS
a	102 KPU-	97	PDY- I	ΝE	57 HHA-	50	JJE2 I	UT	29 PDY-	- 55	DBU-	1	FMC2	FRED	MCCORMACK	aD	FARGO
]	0 None	0	None I	HU	24 PDY-	24	DBU- 1	VT	14 KPU-	- 13	AMI-	1	FRE-	FRANK	MERRILL	BI	HILAN
)	28 DBU-	26	PDY-	NH	27 RST2	17	AmI- I	VA	61 MSI	60	JFE-	1	FME1	FRANK	MERRILL	IL	MACONB
	198 FME1	196	RST- I	ΝĴ	75 JFE-	69	RSM- 1	WA	46 FRC	30	JJE2	1	FNO-	FRED	NORDQUIST	NY	CLAY
ŧ	180 RST-	132	DBR- 1	NM	45 JJE2	44	KPU- I	NU	39 RST-	- 33	FME-	1	GHA-	GUS	MANCUSO	MD.	CHEVERLY
à	120 RBR-	102	JEB-	NY	209 FNO-	172	DNI	WI	136 BEL	120	JEB-	i	JAY-	JIM	AYERS	TN	MURFREESBORG
ì	89 DBU-	78	TBR- I	NC	117 #SI1	79	PDY- I	ωY	26 RST-	- 25	PDY-	1	JEB-	JOHN	EBELING	MN	BLOOMINGTON
f	101 RST-	69	DBR- i	ND	34 FMC-	34	FACE I	DC	13 G4A-	- 13	DNI-	1	JEB2	JOHN	EBELING	BN	PROSIT
													JFE-	JOSEPH	FELA	NJ	S PLAINFIELD
													JJE2	JOHN	JEFFERSON	CA	PLEASANTON/ANTIC
			. CAI	HADA.	MEXICO/FORE	IGN ST	ATS						JJE3		JEFFERSON JEFFERSON		PLEASANTON/ANTIC
			. CAI	HADA)	MEXICO/FORE	IGN ST	ATS							JOHN		AK	
	# -DXER	#	Cai	HADA/	MEXICO/FORE		ATS DXER	PU	₩ -DXEF	# -	-DXER	1	JJE3	JOHN JIM	JEFFERSON	AK NH	ANCHORAGE
	# -DXER	#				# -		РU			-DXER		JJE3 JPI- JPI1	JOHN JIM	JEFFERSON PIZZI	AK NH CA	ANCHORAGE LOVINGTON
		#		PU	# -DXER	# -	DXER 1					1	JJE3 JPI- JPI1 KPU-	JOHN JIM JIM	JEFFERSON PIZZI PIZZI	AK NM CA AL	ANCHORAGE LOVINGTON ORCUTT
HAD			-DXER I	PU	# -DXER	# -	DXER I					1	JJE3 JPI- JPI1 KPU-	JOHN JIM JIM KEITH LARRY	JEFFERSON PIZZI PIZZI PUGH	AK NM CA AL IL	ANCHORAGE LOVINGTON ORCUTT NEW HOPE
HAD B)A	26-	-DXER	PU	# -DXER	# -	DXER I	MEXIC	0 (CONT)		*****	1 1	JJE3 JPI- JPI1 KPU- LME-	JOHN JIM JIM KEITH LARRY MIKE	JEFFERSON PIZZI PIZZI PUGH HEADE	AK NM CA AL IL CT	ANCHORAGE LOVINGTON ORCUTT NEW HOPE CHICAGO
HAD	28-JEB2	26-	-DXER I I I -JJE2 I	PU MEX	# -DXER (ICO (CONT) 8-FME1 3-PDY-	# - 6- 0-	DXER I	MEXIC SLP	0 (CONT) 2-TMC-	0 3	-None	1 1	JJE3 JPI- JPI1 KPU- LME- MBU-	JOHN JIM JIM KEITH LARRY MIKE MIKE	JEFFERSON PIZZI PIZZI PUGH MEADE BUGAJ	AK NM CA AL IL CT NE	ANCHORAGE LOVINGTON ORCUTT NEW HOPE CHICAGO ENFIELD
INAD	20-JJE2 20-JJE2	26- 11- 13-	-DXER	PU MEX CHI	# -DXER (ICO (CONT) 8-FME1 3-PDY-	# - 6- 0- 6-	DXER I	MEXIC SLP SOM	0 (CONT) 2-TMC- 4-PDY-	0 3	-None	\$ 8 8 8	JJE3 JPI- JPI1 KPU- LME- MBU- MhA-	JOHN JIM JIM KEITH LARRY MIKE MIKE MIKE	JEFFERSON PIZZI PIZZI PUGH MEADE BUGAJ HAWK	AK NM CA AL IL CT NE TN	ANCHORAGE LOVINGTON ORCUTT NEW HOPE CHICAGO ENFIELD OMAHA
INAD	28-JEB2 20-JJE2 15-FMC-	26- 11- 13- 6-	-DXER	PU ME) CHI CHI COI	# -DXER (ICO (CONT)	# 6- 0- 6- 21-	DXER I I FAC- I None I PDY- I	MEXIC SLP SOM TAB	0 (CONT) 2-TMC- 4-PDY- 2-TMC-	0- 3- 2- 6- 6-	-None -JJE2 -PDY-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	JJE3 JPI- JPI1 KPU- LME- MBU- MhA- MSI-	JOHN JIM JIM KEITH LARRY MIKE MIKE MIKE MATT HATT	JEFFERSON PIZZI PIZZI PUGH MEADE BUGAJ HAWK SITTEL	AK NM CA AL IL CT NE TN NC	ANCHORAGE LOVINGTON ORCUTT NEW HOPE CHICAGO ENFIELD OMAHA KINGSPORT
INAD	28-JEB2 20-JJE2 15-FMC- 9-FME1	26- 11- 13- 6- 12-	-DXER	PU MEX CHI CHI CON DF	# -DXER (ICO (CONT) 8-FNE1 3-PDY- 8-FNE1 21-TNC- 1-PDY-	# 6- 0- 6- 21-	FAC- I None i PDY- I	MEXIC SLP SOM TAB TAM	0 (CONT) 2-TMC- 4-PDY- 2-TMC- 8-PDY-	0 3 2 6 6 6	-None -JJE2 -PDY- -KPU-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	JJE3 JPI- JPI1 KPU- LME- MBU- MHA- MSI- MSI1 PDY-	JOHN JIM JIM KEITH LARRY MIKE MIKE MIKE MATT HATT	JEFFERSON PIZZI PIZZI PUGH MEADE BUGAJ HAWK SITTEL SITTEL	AK NM CA AL IL CT NE TN NC TX	ANCHORAGE LOVINGTON ORCUTT NEW HOPE CHICAGO ENFIELD ORDHA KINGSPORT RALEIGH
INAD	28-JEB2 20-JJE2 15-FMC- 9-FME1 13-FNO-	26· 11· 13· 6· 12· 9·	-DXER	PU ME) CHI CHI COI DF DUI	-DXER 	# 6- 0- 6- 21- 0-	PACE I PA	MEXIC SLP SOM TAB TAM VCZ	0 (CONT) 2-TMC- 4-PDY- 2-TMC- 8-PDY- 9-JPI-	0 3 2 6 6 6	-None -JJE2 -PDY- -KPU- -KPU-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	JJE3 JPI- JPI1 KPU- LME- MBU- MHA- MSI- MSI1 PDY-	JOHN JIM KEITH LARRY MIKE MIKE MATT HATT PAT ROGER	JEFFERSON PIZZI PIZZI PUGH MEADE BUGAJ HAWK SITTEL SITTEL DYER	AK NM CA AL LCT NE TH NC TX IA	ANCHORAGE LOVINGTON ORCUTT NEW HOPE CHICAGO ENFIELD OMBHA KINGSPORT RALEIGH SAN ANTONIO
INAD	28-JEB2 20-JJE2 15-FMC- 9-FME1 13-FNO- 15-FME1	26- 11- 13- 6- 12- 9- 80-	-DXER	PU	-DXER 	# 6- 0- 6- 21- 0- 1- 2-	PDXER FAC- None PDY- JPI- JPI-	MEXIC SLP SOM TAB TAM VCZ	0 (CONT) 2-TMC- 4-PDY- 2-TMC- 8-PDY- 9-JPI- 2-JPI-	0 3 2 6 6 6	-None -JJE2 -PDY- -KPU- -KPU- -PDY-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	JJE3 JPI- JPI1 KPU- LME- MBU- MHA- MSI- MSI1 PDY- RBR- RSA-	JOHN JIM KEITH LARRY MIKE MIKE MATT HATT PAT ROGER	JEFFERSON PIZZI PIZZI PUGH MEADE BUGAJ HAMK SITTEL SITTEL DYER BROWN SANFORD	AK NM CA AL IL CT NE TN NC TX IA TX	ANCHORAGE LOVINGTON ORCUTT NEW HOPE CHICAGO ENFIELD OMPHA KINGSPORT RALEIGH SAN ANTONIO AMES
HAD ::	28-JEB2 20-JJE2 15-FMC- 9-FME1 13-FNO- 15-FME1 114-DNI-	26- 11- 13- 6- 12- 9- 80- 2-	-DXER	PU MED CHI COM DF DUR GRO	# -DXER (ICO (CONT) 8-FME1 3-PDY- 8-FME1 21-TNC- 1-PDY- 9-JPI- 9-JPI- 1-JPI-	# 6- 0- 6- 21- 0- 1- 2- 0-	FAC- I Hone I JPI- I HONE I FAC- I	MEXIC SLP SGN TAB TAM VCZ YUC	0 (CONT) 2-TMC- 4-PDY- 2-TMC- 8-PDY- 9-JPI- 2-JPI-	0 3 2 6 6 6 6 2	-None -JJE2 -PDY- -KPU- -KPU- -PDY-		JJE3 JPI- JPI1 KPU- LME- MBU- MHA- MSI- HSI1 PDY- RBR- RSA- RSC-	JOHN JIM JIM KEITH LARRY MIKE MIKE MATT HATT PAT ROGER RICK	JEFFERSON PIZZI PIZZI PUGH MEADE BUGAJ HAMK SITTEL SITTEL DYER BROWN SANFORD	AK NM CA AL IL CT NE TN NC TX IA TX NJ	ANCHORAGE LOVINGTON ORCUTT NEW HOPE CHICAGO EMFIELD OMPHA KINGSPORT RALEIGH SAN ANTONIO AMES BURNETT
HAD B B B B B B B B B B B B B B B B B B B	28-JEB2 20-JJE2 15-FMC- 9-FME1 13-FNO- 15-FME1 114-DNI- 2-JFE-	26- 11- 13- 6- 12- 9- 80- 2- 26-	-DXER	PU MED CHI CON DF DUR GRO	# -DXER (ICO (CONT)	# 6 0- 6- 21- 0- 1- 2- 0- 10-	PACE I FACE I None I PDY I JPI I None I JPI I TACE I	MEXIC SLP SON TAB TAM VCZ YUC	0 (CONT) 2-TMC 4-PDY 2-TMC 8-PDY 9-JPI 2-JPI- GM 6-RST-	0- - 3- - 2- - 6- - 6- - 2-	-None -JJE2 -PDY- -KPU- -KPU- -PDY-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	JJE3 JPI- JPI1 KPU- LME- MBU- MHA- MSI- HSI1 PDY- RBR- RSC- RSM-	JOHN JIM JIM KEITH LARRY MIKE MIKE BATT MATT PAT ROGER RICK ROBERT	JEFFERSON PIZZI PIZZI PUGH MEADE BUGAJ HAMK SITTEL SITTEL BYER BROWN SAMFORD SCHWEITZER	AK NM CA AL IL CT NE TH NC TX IA TX NJ NJ	ANCHORAGE LOVINGTON OCCUTT NEW HOPE CHICAGO EMFIELD OWAHA KIMSSPORT RALEIGH SAN ANTONIO AMES BURNETT E BRUNSWICK
HAD	28-JEB2 20-JJE2 15-FMC- 9-FME1 13-FNO- 15-FME1 114-DNI- 2-JFE- 28-FME1	26- 11- 13- 6- 12- 9- 80- 2- 26- 8-	-DXER	PU ME) CHI CHI CON DF DUF GRO GTO	# -DXER (ICO (CONT)	# 6 0 6 21 0 10 3	PDXER 1 FAC- 1 None 1 PDY- 1 PDI- 1 None 1 PDI- 1 TMC- 1 None 1 PDY- 1	MEXIC SLP SON TAB TAM VCZ YUC FOREI CUBA	0 (CONT) 2-THC- 4-PDY- 2-THC- 8-PDY- 9-JPI- 2-JPI- GM 6-RST- 3-PDY-	0 0 3 2 6 6 6 6 2 2 5 1	-None -JJE2 -PDYKPUKPUPDY-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	JJE3 JPI- JPI1 KPU- LME- MBU- MHA- MSI- HSI1 PDY- RBR- RSG- RSM- RST-	JOHN JIM JIM KEITH LARRY MIKE MIKE MATT PAT ROGER RICK ROBERT ROBERT RALPH	JEFFERSON PIZZI PIZZI PUGN MEADE BUGAJ HAWK SITTEL SITTEL DYER SAMFORD SCHWEITZER SMOLAREK	AK NM CA AL IL CT NE TH NC TX HJ HJ HJ IN	ANCHORAGE LOVINGTON ORCUTT NEW HOPE CHICAGO ENFIELD ORAMA KINGSPORT RALEIGH SAN ANTONIO ANES BURNETT E BRUNSWICK OLDWICK MUNCIE
RNAE 3 3 3 3 4 EI	28-JEB2 20-JJE2 15-FMC- 9-FME1 13-FNO- 15-FME1 114-DNI- 2-JFE- 28-FME1 9-JJE2	26- 11- 13- 6- 12- 9- 80- 2- 26- 8-	-DXER	PU ME) CHI CON CON GRO GRO GRO GRO HGG JAN ME MI	# -DXER (ICO (CONT)	#	FAC- I FA	MEXIC SLP SGN TAB TAM VCZ YUC FOREI CUBA BELIZ	0 (CONT) 2-TMC- 4-PDY- 2-TMC- 8-PDY- 9-JPI- 2-JPI- 6N 6-RST- 3-PDY- 3-DNI-	0 0 3 2 6 6 6 6 2 2 5 1 2 2	-None -JJE2 -PDYKPUKPUPDYFME1 -JPI-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	JJE3 JPI- JPI1 KPU- LME- MBU- MHA- MSI- HSI1 PDY- RBR- RSG- RSM- RST-	JOHN JIM JIM KEITH LARRY MIKE MIKE BATT MATT PAT ROGER RICK ROBERT ROBERT RALPH RICHARD	JEFFERSON PIZZI PIZZI PIZZI PUGH MEADE BUGAJ HAWK SITTEL SITTEL DYER BRGWN SAMFORD SCHWEITZER SROLAREK STROBEL	AK NM CA AL IL CT NE TH NC TX NJ NJ NJ NA	ANCHORAGE LOVINGTON ORCUTT NEW HOPE CHICAGO ENFIELD ORAMA KINGSPORT RALEIGH SAN ANTONIO ANES BURNETT E BRUNSWICK OLDWICK MUNCIE
HAD HELL HELL HELL HELL HELL HELL HELL HEL	28-JEK2 20-JJE2 15-FMC- 9-FME1 13-FNO- 15-FME1 114-DMI- 2-JFE- 28-FME1 9-JJE2 1-WHE2	26- 11- 13- 6- 12- 9- 80- 2- 26- 8-	-DXER	PU ME) CHI CON CON GRO GRO GTO HGG JAN ME MO ME MO ME	# -DXER (ICO (CONT)	# 6 0 6 21 0 10 3 1 3	FAC- I FA	MEXIC SLP SON TAB TAM VCZ YUC FOREI CUBA BELIZ BERSU	0 (CONT) 2-TMC- 4-PDY- 2-TMC- 8-PDY- 9-JPI- 2-JPI- 6N 6-RST- 3-PDY- 3-DNI- 4-PDY-	0 · 3 3 2 2 · 6 6 · 6 6 · 2 2 · 5 · 1 · 2 2 · 1	-None -JJE2 -PDYKPUPDYFME1 -JPIFNOKSI-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	JJE3 JPI- JPI1 KPU- LME- MBU- MHA- MSI- HSI1 PDY- RBR- RSA- RSC- RSM- RST- RST2 SCH-	JOHN JIM JIM KEITH LARRY MIKE MIKE MATT PAT ROGER RICK ROBERT RABERT RABERT RALPH RICHARD SAUL	JEFFERSON PIZZI PIZZI PIZZI PUCH MEADE BUGAJ HAWK SITTEL SITTEL SYTTEL BRGWN SCHWEITZER SAMFORD SCHWEITZER STOLAREK STEINBERGER CHERNOS	AK NM CA AL IL CT NE TN NC TX NJ NJ NM MA	ANCHORAGE LOVINGTON ORCUTT ORC
ANAD 33 33 33 33 4 EI	28-JEK2 20-JJE2 15-FMC- 9-FME1 13-FNO- 15-FME1 114-DMI- 2-JFE- 28-FME1 9-JJE2 1-WHE2	26- 11- 133- 6- 12- 9- 80- 2- 2- 26- 8- 1-	-DXER	PU ME) CHI CON CON GRO GRO GTO HGG JAN ME MO ME MO ME	# -DXER IICO (CONT)	# 6- 0- 6- 21- 0- 1- 2- 0- 10- 3- 14-	DXER	MEXIC SLP SON TAB TAM VCZ YUC FOREI CUBA BELIZ BERSU EL SA	0 (CONT) 2-THC- 4-PDY- 2-THC- 8-PDY- 9-JPI- 2-JPI- 6N 6-RST- 3-PDY- 3-DNI- 4-PDY- 12-PDY-	· 0 · 3 · 2 · 6 · 6 · 6 · 6 · 2 · 2 · 5 · 1 · 2 · 2 · 4 · 4	-None -JJE2 -PDYKPUKPUPDYFME1 -JPIFNO-		JJE3 JPI- JPI1 KPU- LME- MBU- MHA- MSI- HSI1 PDY- RBR- RSA- RSC- RSM- RST- RST2 SCH-	JOHN JIM JIM KEITH LARRY MIKE MATT PAT ROGER RICK ROBERT ROBERT ROBERT RALPH RICHARD SAUL STEVE	JEFFERSON PIZZI PIZZI PIZZI PUGH MEADE BUGAJ HAWK SITTEL SITTEL DYER BROWN SCHWETTZER SMOLAREK STROBEL STEINBERGER CHERNOS WEST	AK NM CA AL IL CT NE TN NC TX NJ NJ NA ON PA	ANCHORAGE LOVINGTON ORCUTT NEW HOPE CHICAGO ENFIELD ONAHA KINGSPORT RALEIGH SAN ANTONIO ANES BURNETT E BRUNSWICK OLDWICK MUNCIE HUDSON BURNT RIVER HAVERTOWN
AMAD B C B B B B F F G C C C C C C C C C C C C C C C C C	28-JER2 20-JJE2 15-FMC- 9-FME1 13-FNO- 15-FME1 114-DMI- 2-JFE- 28-FME1 9-JJE2 1-WHE2	26-11-13-6-12-9-80-2-26-8-1-0-0-	-DXER	PU	# -DXER IIIO (CONT)	#	DXER	MEXIC SLP SON TAB TAM VCZ YUC FOREI CUBA BELIZ BERSU EL SA GUATE	0 (CONT) 2-THC- 4-PDY- 2-THC- 8-PDY- 9-JPI- 2-JPI- 6N 6-RST- 3-PDY- 3-DNI- 4-PDY- 12-PDY- 2-KSI-	· 0 · 3 · 2 · 6 · 6 · 6 · 6 · 2 · 2 · 1 · 1 · 4 · 4 · 2 · 2	-None -JJE2 -PDYKPUKPUPDYFME1 -JPIFNOKSI-		JJE3 JPI- JPI1 KPU- LME- MBU- MSI- MSI1 PDY- RSA- RSC- RSM- RST- RST2 SWE-	JOHN JIM JIM JIM JIM KEITH LARRY MIKE MIKE MIKE MATT PAT ROGER RICK ROBERT ROBERT ROBERT RALPH RICHARD STEVE TODD	JEFFERSON PIZZI PIZZI PIZZI PUCH MEADE BUGAJ HAWK SITTEL SITTEL SYTTEL BRGWN SCHWEITZER SAMFORD SCHWEITZER STOLAREK STEINBERGER CHERNOS	AK NM CA AL IL CT NE TN NC TX NJ NJ NA ON NA	ANCHORAGE LOVINGTON ORCUTT NEW HOPE CHICAGO ENFIELD ONAHA KINGSPORT RALEIGH SAN ANTONIO ANES BURNETT E BRUNSWICK OLDWICK MUNCIE HUDSON BURNT RIVER HAVERTOWN
ANAD B C B B B B F G S W T E E X I C C B B B B B B F C C S S S S S S S S S S S S S S S S S	28-JER2 20-JJE2 15-FMC- 9-FME1 13-FNO- 15-FME1 114-DHI- 2-JFE- 28-FME1 9-JJE2 1-WHE2	26-11-133-6-12-9-80-2-26-8-1-10-10-10-10-10-10-10-10-10-10-10-10-1	-DXER	PU	# -DXER (ICO (CONT) 8-FRE1 3-PDY- 8-FRE1 21-TRC- 1-PDY- 1-JPI- 12-TMC- 3-JPI- 5-PDY- 5-PDY- 1-JPI- 1-PDY- 1-PDY- 1-PDY- 1-PDY- 1-PDY- 1-PDY-	#	DXER	MEXIC SLP SON TAB TAM VCZ YUC FOREI CUBA BELIZ BERMU EL SA GUATE HONDU	0 (CONT) 2-THC- 4-PDY- 2-THC- 8-PDY- 9-JPI- 2-JPI- 6N 6-RST- 3-PDY- 3-DNI- 4-PDY- 12-PDY- 2-KSI-	00 3 2 2 2 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	-None -JJE2 -PDYKPUKPUPDYFME1 -JPIFNOKSIKSIPDY-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	JJE3 JPI- JPI1 KPU- LME- MBU- MMA- MSI- MSI1 PDY- RBR- RSC- RSM- RST- RST2 SCH- SWE- TBR- TXC-	JOHN JIM JIM JIM JIM KEITH LARRY MIKE MIKE MIKE MATT PAT ROGER RICK ROBERT ROBERT ROBERT RALPH RICHARD STEVE TODD	JEFFERSON PIZZI PIZZI PIZZI PUGH MEADE BUGAJ HAWK SITTEL SITTEL DYER BROWN SAMFORD SCHWEITZER STEUBERGER CHERNOS MEST BRANDENBURG	AK NM CA AL IL CT NE TH NC TX IA TX NJ IN MA ON PA KS Th	ANCHORAGE LOVINGTON ORCUTT NEW HOPE CHICAGO ENFIELD ORAMA KINGSPORT RALEIGH SAN ANTONIO ANES BURNETT E BRUNSWICK OLDWICK MUNCIE HUDSON BURNET IVER HAVEKTOWN SILVER LAKE
U ANAD B C B B F S N EI C C K K T C C C C C C C C C C C C C C C	28-JEB2 20-JJE2 15-FMC- 9-FME1 13-FNO- 15-FME1 114-DMI- 2-JFE- 28-FME1 9-JJE2 1-WHE2	26- 11- 13- 6- 12- 9- 80- 2- 26- 8- 1-	-DXER	PU	# -DXER (ICO (CONT)	#	DXER	MEXIC SLP SON TAB TAM VCZ YUC FOREI CUBA BELIZ BERMU EL SA GUATE HONDU JAMAT	0 (CONT) 2-TMC 4-PDY 2-TMC 8-PDY 9-JPI 2-JPI 6N 6-RST 3-PDY 3-DNI 4-PDY 12-PDY 2-KSI 4-KSI	00 3 3 2 2 2 3 5 5 1 2 2 3 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1			JJE3 JPI- JPI1 KPU- LME- MBU- MSI- MSI1 PDY- RSA- RSC- RST- RST2 SUE- TBR- TXC- VEA-	JOHN JIM JIM JIM JIM KEITH LARRY MIKE MIKE MATT PAT ROGER RICK ROBERT RALPH RICHARD SAUL STEVE TODD TIM VERNON	JEFFERSON PIZZI PIZZI PIZZI PUGN MEADE BUGAJ HAWK SITTEL SITTEL SITTEL DYER SAMFORD SCHWEITZER SMOLAREK STEDBERGER CHERNOS WEST MEST MEST MCVEY	AK NM CA AL IL CT NE TN NC TX NJ NJ NA	ANCHORAGE LOVINGTON ORCUTT NEW HOPE CHICAGO EMFIELD OWAHA KIMSSPORT RALEIGH SAN ANTONIO ANES BURNETT E BRUNSWICK OLDWICK HUDSON BURNT RIVER HAVERTOWN SILVER LAKE BOLIVAR

ABOUT OUR COVER...Thanks to VUD PHOTO NEWS' editor Dave Nieman for the great cartoon on this month's issue...kudos also to the following DXers for contributing to recent VUD covers: Troy Mimms and NorSat Services (OCTOBER 1991 V.U.D.) Mike Cherry, Vancouver BC, via NORTHERN FM's Greg Coniglio (NOVEMBER 1991 V.U.D.). Some additional layout work was provided by Bob Twomey and Bill Thompson. Also...upcoming V.U.D. covers will feature material from the extensive coverage map collection of FCC FM NEWS' editor Bruce Elving!

Recently, Eric Voytko kindly sent this list to my ETVDX column. I felt this list is of great help in possibly IDing some DX catches. So I am submitting this list courtesy of Eric to the VUD. One note though, John Combs of Tallahassee Florida said not all stations carrying Channel America run it all the time. Some might only carry CHA for only a few hours a night or so, still hopefully this can be of use to all of you-Bill Nienajadly

CHANNEL AMERICA LPTVS AND FULL POWER STATIONS AS OF OCTOBER 2,1991 By ERIC VOITKO

The good people at Channel America were kind enough to send me a current station listing. I have re-organized them from NSI ranking to State and City of License

ARIZONA		LOUISIAN	IA .	OHIO	
K25DM	Phoenix	W47DW	Alexandria	W29AI	Akron
		WGMB	Baton Rouge	W59BP	Ashland
CALIFORN	IA	K13VG	Jennings	W25AI	Cincinnati
K66CY	Arroyo Grande	K62DW	Lafayette	W56CA	Delaware
KKAK-61	Bakersfield	W61AZ	New Orleans	W48AP	Toledo
K67DY	Chico				
K38CW	Palmdale	HAINE		OKLAHOMA	
KAGL-30	San Bernardino	W57AP	Portland	K28DE	Broken Bow
				WO7TX	Oklahoma City
COLORADO		MARYLAND		W27AK	Ponca City
K38DF	Aurora	W52AX	Leonardtown		
1.0001		no assi	200.N22WUVWII	CREGON	
PLORIDA		MASSACHU	SETTS	КЗВСР	Medford
W42BM	Daytona		Lawrence	110001	110dI OIM
W4ZBB W07BR	Fort Meyers	MULT-07	TG#TGILCG	PENNSYLV	ANTA
WO9BS	Naples	HICHIGAN		W47A0	Berwick
W69AX	Perry	W26AB	Detroit	W40AF	Dillsburg
W35AJ	St.Petersburg	WZGAB W40AK	Norton Shores	W08CC	Hammonton
WOOBI	Tallahassee	WAUAK	MOTCOU SUOTAR	W35A0	Hazelton
MOADT	rarrangasee	MINNESOT	· X	W63AU	Pittsburgh
PERSONAL A				W09BI	Williamsport
WNGM-34	Mhone	K13UT	Minneapolis	MOSEL	williamshold
WNGM-34 W67BE	Athens	HTDOTOG	PRESE	TENNESSE	P
	Augusta	MISSISSI		W18AN	
WSST-55	Cordele Dublin	W20AD	Philadelphia	W18AN W12BU	Harrogate Heiskell
W35BB W67CI	Roswell	W11BU	Webb	W1ZBU W27AN	Murfreesboro
	Savannah	*************		WZ/ALN	nullieesporo
W55AW	Savannan	MISSOURI		TEXAS	
TITINOTO		K35CO	Cameron		Commen Christer
ILLINOIS		K02NQ	Columbia	K07UD	Corpus Christ
W30AL	Plano	KO7TV	St.Louis	K50AO	Corpus Christ
K45AJ	Rockford			KJLF-65	
THEFT		NEBRASKA		K54CB	Mt.Pleasant
INDIVAV		K67CV	Lincoln	K67DW	San Antonio
W07CL	Auburn			116011	
W52AZ	Evansville	NEW YORK		UTAH	G. G
		W58AV	Buffalo	K55DL	St.George
IOWA		W08CJ	Glen Palls	HTD ATTO	
K39AS	Marshalltown	W15AS	Oneata	VIRGINIA	
		W40AG	Rochester	W51BH	Gloucester
KANSAS		W14AE	Syracuse	W68BI	Norfolk
K06KZ	Junction City				
		NORTH CA	ROLINA	WASHINGT	
KENTUCKY		WAAP-16	Burlington	KCWT-27	Wenatchee
W07BY	Morehead	W34AX	Henderson		
W10BM	Morehead	W53AD	Lenoir	WEST VIE	GINIA
W02BP	Mt.Sterling	W68BK	Raleigh	W55AT	Huntington
W06BC	Mt. Sterling	W20AT	Roanoke Rapids		
		W10B2	Wilmington	WISCONSI	N
W46BE	Murray	MIODE	MITHITIGEOU		
W46BE	Murray	WIODE	WIIMINGCON	WHKE-55	Kenosha

ANTENNAS

- 008 YAGI ANTENNA FOR VIDEO SIGNALS BELOW CH. A2 Thompson, 38 Dec 79 (1) 027 SIMPLE MAST REINFORCEMENT Thompson, 17 Jun 81 (1)
 - UNDERSTANDING FM ANTENNA SPECS Thompson, 32 Jly 81
- 038 LOOPS, EARS, AND DX - Grant, 22 Dec 81 (1)
- 044 MODIFYING THE FINCO P-7 PARABOLIC DISH - West, 24 May 82 (2); 52 Oct 82 (2)
- 045 STAGGER STACKING ANTENNAS - Thompson, 24 Jun 82 (5)
- practical information on stacking 2 or more arrays for more gain
- 051 THE HOVERMAN ANTENNA (for UHF TV) Thompson, 58 Sep 82 (2) 059
- EXPERIMENTS WITH A HOMEBREW YAGI ANTENNA Thompson, 26 Mar 83 (1); 30 Apr 83 (1); 39 Jan 84 (1)
- 094 DX'ing WITH INDOOR ANTENNAS - Manucci, 28 Jun 87 (2)
- 114 A BETTER UHF DISH FEED? - Thompson, 20 May 89 (2)
- A HOMEBREW ANTENNA FOR VIDEO SIGNALS BELOW 54 MHz Prosee, 32 Apr 90 (2)
- XXX See Also "ANTENNA NEWS" column...

EQUIPMENT REVIEWS

- 005 BEARCAT SCANNERS (Models 210 & 250) 0'Connor, 6 Sep 79 (3)
 - AKAI AT-V04 FM TUNER Sawatzky, 46 Oct 80 (6)
- DIGITREX ELECTRONICS PA-19 PREAMP Wilson, 23 Mar 81 (1) 032
- RADIO SHACK #15-1134 UHF PREAMP Thompson, 45 Aug 81 (1) JERROLD STO-82, "THE BEST UHF BALUN" - Thompson, 31 Jun 81 (1)
- YAMAHA T-2 FM TUNER DeFilippo, 42 Mar 82 (3)
- 047 BLONDER-TONGUE UHF TV PREAMPS Thompson, 22 Jly 82 (1)
 048 MAGNUM #2001 CAR FM PREAMP Thompson, 37 Jly 82 (1)
 050 RAYSON "HI-PERFORMER II" UHF PREAMP Thompson, 54 Aug 82 (2)
- 060 CARVER TX-11 FM TUNER Thompson, 30 Jun 83 (3); 56 Aug 83 (2)
- 062 DX ANTENNA UHF TV PREAMP Pizzi, 12 Aug 83 (3)
- 071 CHANNEL MASTER PROBE NINE FM ANTENNA - Thompson, 25 Sep 84 (1)
- ALLIANCE HD-73 ROTOR Wertman, 45 Sep 85 (1)
- CHANNEL MASTER 7206 HI-Q TUNABLE UHF TRAP Wertman, 40 Dec 85 (1) 078
- 079 ONKYO T-9090 FM TUNER Buntin, 5 May 86 (2) 080 TEKNIKA 6510 UHF TV TUNER - Wertman, 32 May 86 (2);
- Thompson, 42 Jun 86 (2)
- 096 ANTENNA NEWS Wertman, 71 Sep 87 (1) about the Channel Master 9520 rotor
- SOME ANSWERS: BEST GEAR FOR TV & FM Walczak, 39 Nov 87 (1) 100
- 1988: LEAP YEAR FOR FM TUNER PERFORMANCE staff, 38 May 88 (1)
- 130 A USER's REVIEW OF THE ICOM R-7000 - Mims, 34 Jan 91 (1)

F, PROPAGATION

- 004 ALL ABOUT F2 SKIP - Thompson, 8 Aug 79 (5); 8 Oct 79 (3) HOME-BREW CONVERTER FOR F2 TV DX - Pulice, 8 Sep 79 (3)
- 009 SUPER SIMPLE SYSTEM FOR BBC VIDEO Goldman, 7 Jan 80 (1)
- TRANSATLANTIC F2 TV DX TIPS Pulice, 40 Aug 80 (3) 034
- MORE F2 TV DX? Thompson, 46 Sep 81 (1) 109
- F2 SKIP...GET READY Stock, 42 Oct 88 (1)
- TIPS FOR F2 TV DX'ing Turcsany, 43 Dec 88 (1) 111
- XXX See Also RECEPTION REPORTS...

FM SCA (Subsidiary Communications Authorization)

- SCA: RADIO THE FCC DOESN'T WANT YOU TO OWN Elving, 25 Jly 77 (5); 13 May 84 (1) notes on installing SCA decoders
- SCA PAGING Elving, 28 Nov 83 (2)
- XXX See Also "TECHNICAL TOPICS" column...

INTERNATIONAL BROADCASTING

- 012 DX AROUND THE WORLD - Taylor, 22 Jun 80 (3)
 - the author describes FM in Egypt, S. Africa, Hong Kong, & China
- 017 FM AND TV IN FIVE EUROPEAN CITIES - Stroebel, 12 Oct 80 (3)
- the author visits Vienna, Salzburg, Paris, London, & Edinburgh
- 028 A LOOK AT EUROPEAN TV TEST PATTERNS - Thompson, 28 Jun 81 (2); - Luman, 44 Oct 81 (2)
- 056
- FM IN ARGENTINA Thompson, 32 Nov 82 (1) REPORT FROM THE CARIBBEAN Hauser, 24 Mar 83 (3)
- CUBAN TV TEST PATTERNS Nieman, 22 Aug 86 (1)
- INTERNATIONAL DX 70 Sep 87 (1) transatlantic skip in Holland 095 097
- TRANSATLANTIC E-SKIP: SOME OBSERVATIONS Emerson, 16 Oct 87 (1) 115 PRECISION FREQ. OFFSETS OF EUROPEAN LOWBAND VHF TV - Onken, 18 Jun 89 (2)
- TELEVISION IN SOCIALIST CUBA Anderson, 36 Dec 89 (1) 120
- 124 VIDEO CARRIER FREQ. LIST (AUSTRALIA & NEW ZEALAND) - Kadet, 34 Apr 90 (2)
- 134 FM OPERATIONS IN THE CARIBBEAN - Renfrew, 8 Aug 91 (2)

METEOR SCATTER PROPAGATION

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THE PHYSICS OF METEOR SCATTER - Fahber, 8 Apr 81 (5); 36 Mar 82 (6)
           good intro to MS theory, equipment, when and where to look, etc.
       METEOR SCATTER INSIGHTS - Fahber, 5 Apr 82 (1)
           forecast of MS activity; false CCI patterns during MS bursts
       METEOR SCATTER INSIGHTS - Fahber, 52 Aug 82 (2)
   049
           M. burst communications; why reception is limited; dates of showers
  054
       METEOR SCATTER INSIGHTS - Fahber, 28 Nov 82 (1)
           about knots and swarms; forecasts of MS activity
  075
        IN SEARCH OF A METEOR SCATTER BEACON - Owen, 28 Jly 85 (3)
           measurement of peaks and bursts in meteor showers
  090
       METEOR SCATTER INSIGHTS - Fahber, 42 Dec 86 (1)
MISCELLANEOUS TECHNICAL TOPICS
       USING THE 6m BAND AS A DX BAROMETER - Thompson, 47 Nov 79 (1) OVERLOAD FILTERS FOR CAR FM - Weeks, 7 Feb 80 (3); 32 Dec 80 (2)
  011
       NPR'S SATELLITE INTERCONNECTION SYSTEM - Monti, 28 Apr 82 (3); 6 Apr 80 (3)
       AURORAL DX TIPS - Thompson, 25 Jun 80 (1)
  013
   014
       F(50,90) INVENTED - Elving, 40 Jly 80 (2)
           whether or not to expect DX based on station coverage contours
  021
       CANADIAN CONTINUOUS MARINE BROADCASTS - Hepburn, 20 Mar 81 (3)
       CHOOSING A PREAMP FOR UHF TV DX - Thompson, 30 Apr 81 (2)
  039
       A LOOK AT THE FM BAND (via a spectrum analyzer) - Monti, 26 Dec 81 (1)
  046
       FINDING BEARINGS AND HEADINGS - Wilson, 32 Jun 82 (2)
       WEATHER SYSTEMS AND TROPO DX - Pearlingi, 38 Jly 83 (1)
  061
       VHF POLICE/UTILITY FREQUENCY TABLE - Blevins, 8 Sep 83 (2)
  066
       General information on UHF PREAMPS - Thompson, 31 Nov 83 (1); 26 Feb 84 (1)
       TUNE IN ON STS-9 (Space Shuttle Communications) - Van Horn, 32 Nov 83 (1)
       MEL WILSON ON E-SKIP - Wilson, 37 May 84 (2); 32 Jun 84 (2) [reprint]
        USE A COMPUTER TO MEASURE YOUR DX DISTANCES - Combs, 40 Aug 84 (2)
   070
       A DX DISTANCE & BEARING PROGRAM - Fuss, 22 Sep 84 (2); 50 Oct 84 (1)
        AMATEUR RADIO TV - Stone, 2 May 86 (2); 3 Feb 88 (2)
   101
       IT'S MAY...TIME FOR E-SKIP DX!! - 33 May 88 (1)
   103
           a quick description of what to look for; basic skip tutorial
   104
        OBSERVING PATCHES OF SPORADIC-E IONIZATION - Fahber, 34 May 88 (2)
           how to see noctilucent clouds, etc.
        WEATHERADIO CANADA - Hepburn, 5 Jun 88 (2)
           list of weatheradio stations with power, calls, freq, etc.
   112
       CANADIAN COAST GUARD CONTINUOUS MARINE BROADCASTS - Hepburn, 41 Mar 89 (3)
       SPECIAL REPORT: GIANT MARCH SOLAR FLARE - Zimmerman, 3 Apr 89 (1)
   119
       2500-mile TROPO FROM CA TO HI - reported by Remington, 46 Nov 89 (1)
       IONOSPHERIC PROPAGATION: NEW OPINIONS - Prosee, 32 Jun 90 (3)
       DIGITAL RADIO: THE SOUND OF THE FUTURE - Rosenberg, 66 Sep 90 (2)
   126
        GUIDELINES FOR BETTER UHF RESULTS - McCarthy, 51 Oct 90 (1)
   128
        WHEN DOES IT HAPPEN? A SHORT LESSON ON E-SKIP - Nienajadly, 8 Dec 90 (1)
   129
        WINTER FM DX'ING - Allen, 30 Jan 91 (3)
       USING YOUR SCANNER FOR EARLY DETECTION OF E-SKIP - Nienajadly, 54 Aug 91 (1)
PHOTOGRAPHING AND TAPING DX
   016 PHOTOGRAPHING DX USING A SIMPLE CAMERA - Kramer, 48 Sep 80 (2)
   019
        HOW TO TAPE (audio) DX - Elving, 30 Dec 80 (2)
        TV DX PHOTO TIPS - Weeks, 33 Feb 81 (1)
        VIDEO TAPE YOUR DX - Grant, 25 Jan 82 (1)
   118 YET ANOTHER WAY OF TAPING THAT DX - Merrill, 54 Oct 89 (1)
PIRATE BROADCASTING
   030 CLOSE ENCOUNTER WITH AN FM PIRATE - Strobel, 4 Jly 81 (2)
        EUROPEAN FM PIRATES - Thompson, 5 Sep 81 (1)
       See also RECEPTION REPORTS...
REGULATIONS, LAWS, AND STANDARDS
        EDUCATIONAL FM UPDATE - Dorner, 12 Jun 79 (3); 5 Jly 79 (2)
           laws, power limits, etc. for stations in the 88-92 band
   036
        WTFDA OFFICIAL CLUB STANDARDS - 41 Oct 81 (1); reprinted 46 Jly 87 (1)
           guidelines for computing DX distance records and totals
        DIRECT BROADCAST SATELLITE REGULATIONS - Fahber, 4 Oct 82 (5)
   057
        FCC LPTV STANDARDS - Fahber, in TV NEWS, 8 Nov 81 (2); 7 Feb 83
       ADVANCED TV SYSTEMS COMMITTEE BROADCAST DEMO (for HDTV) - Monti, 7 Dec 86 (2)
   091
       ANARC UPDATE - Sprachman, 22 Jan 87 (3)
           the Electronic Communications Privacy Act; the legality of DX'ing, etc.
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PROPOSAL TO REALLOCATE THE 120m & 90m SW BANDS, AND 225-230 MHz TO

BROADCASTING IN THE US & CAN. - Bueneman, 36 May 88 (2); Grant, 8 Jun 88 (3)

RECEIVER DESIGN AND MODS

- 002 AGC AND HOW IT AFFECTS TV DX Thompson, 8 Jun 79 (3)
- 064 THE NONIMPORTANCE OF CAPTURE RATIO IN FM DX Elving, 20 Oct 83 (2)
- 105 1988: LEAP YEAR FOR FM TUNER PERFORMANCE staff, 38 May 88 (1)
- 121 MODIFY YOUR RADIO FOR BETTER SELECTIVITY Nienajadly, 34 Jan 90 (1);
 4 Apr 90 (1); 33 Jan 91 (1); Bugaj, 24 Feb 90 (2); Buntin, 16 Mar 90 (1);
 Nollman, 25 Feb 90 (1); 52 Oct 91 (2)
- 122 SELECTIVITY MODIFICATION PROMISES MORE FM DX Elving, 10 Apr 90 (3)

TELEVISION

- 023 WILL LPTV FILL THE BANDS WITH CCI? Thompson, 6 Apr 81 (3)
- 026 NEW KID IN TOWN Fahber, 11 Jun 81 (3)
 - all about low power television (LPTV), regs & technical standards
- 035 UHF TV PROBLEMS Fahber, in TV NEWS, 5 Oct 81 (2)
- 037 THE VERTICAL BLANKING INTERVAL Fahber, in TV NEWS, 4 Dec 81 (1)
- 053 STV STATION LIST Sullivan, 48 Oct 82 (4)
- the basics of scrambling; TV stations using those techniques
- 055 STV UPDATE Thompson, 29 Nov 82 (1)
- 072 CABLE TV INTERFERENCE Sirovy, 21 Dec 84 (3)
- 116 SATELLITE NEWS ANNUAL LISTING OF SERVICES Jensen, 8 Oct 91 (8);
 17 Nov 91 (3) [1990 list: 12 Sep 90 (8); 7 Oct 90 (3); 1989 list:
 3 Jly 89 (8); 67 Aug 89 (3)]

TELEVISION NEWS COLUMN (Fahber)

041 TELEVISION HISTORY PACKAGE (17 pages)

The author ran, in seventeen installments, a "Retrospect" - good, brief history of the development of TV. Topics include: pre-FCC days, early experiments and DX, early equipment, development of standards, what happened to Channel 1, radioastronomy and Channel 37, the KLEE/KPRC bogus DX story, early repeaters, transmission from airplanes, etc. DATES: 6 Jan 82; 6 Feb 82; 4 Mar 82; 8 Apr 82; 6 May 82; 6 Jun 82; 6 Jly 82; 10 Dec 82; 9 Jan 83; 6 Apr 83; 4 May 83; 3 Jun 83; 5 Jly 83; 3 Aug 83; 50 Sep 83; 4 Nov 83; 19 Dec 83

TV TIME TUNNEL COLUMN (Bryant)

- TV1 19 May 89 (1); 21 Jun 89 (1); 54 Jul 89 (1)
- interesting stories of ND TV in the 1950's based on author's experiences
- TV2 3 Aug 89 (1); 55 Sep 89 (1); 18 Oct 89 (1) logos and QSL's from 1955-56
- TV3 22 Nov 89 (1); 18 Dec 89 (1); 35 Jan 90 (1); 26 Feb 90 (1); 23 Mar 90 (1) the history of TV development
- TV4 36 Apr 90 (1)
 - a struggle to survive: the story of WMCV, WTLT, and WZTV
- TV5 18 May 90 (1); 31 Jun 90 (1)
 - The Great Grocery Crash: stories of small-market TV in the 50's
- TV6 55 Aug 90 (1); 65 Sep 90 (1)
- early TV in Saskatchewan
- TV7 45 Nov 90 (1); 54 Dec 90 (2); 4 Jan 91 (5)
- Fargo-11's mysterious origins; stations on air in '49 with logos!
- TV8 36 Feb 91 (2)
 - historic TV test patterns
- TV9 4 Mar 91 (2)
 - history of Seattle TV market
- TV10 21 Apr 91 (1); 3 May 91 (1); 23 Jun 91 (1); 43 Jly 91 (1); 7 Oct 91 (1)
 Odds and Ends tidbits of TV history
- TV11 55 Aug 91 (1)
 - basic info about skip propagation modes
- TV12 40 Sep 91 (2)
 - Whatever happened to channel 1?

RECEPTION REPORTS

- RR1 F2 TV DX RECEPTION REPORTS from Pat Dyer, San Antonio:
 - 21 Jun 79 (1); 24 Jan 82 (1); 46 Mar 82 (1); 3 Apr 83 (1);
 - 32 May 83 (1); 3 Jly 83 (1); 24 Sep 84 (1)
- RR2 SOUTH AMERICAN FM REC. REPORTS from A. Roccaforte, La Plata, ARGENTINA:
 48 Sep 85 (1); 22 Feb 86 (2); 43 Aug 86 (1)
- RR3 PIRATE RECEPTIONS
 - 1. In "Mailbox" column, 3 Apr 85 (1)
 - 2. In "Northern FM DX" column, 31 Nov 85; 27 Feb 86; 13 Aug 86 (3)

- TT2 8 Jly 79 (3)

 Is M.S. possible on rabbit ears? Is M.S. seen on UHF? Lightning scatter.

 300-ohm vs. 75-ohm lead in; using F connectors. Why RG-59 is poor for use at UHF. Good cable to use at PSB frequencies.
- TT3 25 Sep 79 (1)
 FM tuner specifications. Is it possible to hear 10W by E-skip?

TT4 44 Nov 79 (2)

Horiz. & Vertical polarization. Circular pol. What is E-skip?

TT5 28 Jan 80 (2)
What is a log-periodic antenna? What does "50dB quieting" mean?
Problems with a UHF TV preamp. Specific-channel vs. broadband antennas.

TT6 25 Mar 80 (1)
Minimum height for a good antenna. How ant. height affects UHF & VHF.

TT7 34 Apr 80 (1)
Explanation of CCI patterns. TV offsets. Can 10kHz look like 20kHz CCI?
TT8 27 May 80 (2)

Simple, homemade indoor antenna (quad loop). Are preamps useful during E-skip openings? How to be warned of a potential opening.

TT9 26 Jun 80 (1)
Problems with interaction between antennas.

TT10 39 Aug 80 (1) .

UHF antennas for DX'ing. Comparison of Finco P-5 and P-7 dishes.

TT11 50 Sep 80 (1)

All about S-meters. Can an FM antenna be used for TV? Preamps.
TT12 27 Oct 80 (1)

 $$\operatorname{\textsc{TT13}}$$ 13 Dec 80 (2)

 $\qquad \qquad \text{Indoor UHF antennas for DX'ing. How to stack antennas.} \\ \text{TT14} \quad \text{6 Jan 81 (1)}$

Is it possible to have good mid-winter tropo DX?

TT15 34 Feb 81 (1)

Log vs. Yagi FM antennas. What is a "wedge" test pattern?

Does tropo occur on the 30-50 MHz band? Likely times to look for Es.

TT16 24 Mar 81 (2)

Why preamps work best located at antenna. About UHF traps. Disadvantages of preamps. Losses from baluns and cables. Why nulls don't occur where they are expected.

TT17 23 May 81 (1)

The connection between E-skip and thunderstorms.

TT18 25 Jun 81 (1)
Are omnidirectional antennas useful? Discount antenna imitations.

TT19 34 Jly 81 (1)
Coax cable losses; general information about coax.

TT20 46 Aug 81 (1)

Info. about the Perseids meteor shower. When to look for M.S.
TT21 43 Sep 81 (1)

Picket-fencing and multipath effects on car FM radio reception.

TT22 23 Oct 81 (1)
The most common VHF TV antenna used by club members.

TT23 31 Jan 82 (1)
Are tuners or "receivers" the better DX performers?

TT24 30 Feb 82 (1)

Advantages of vertically mounting a TV antenna for DX'ing.

How well a vertical antenna will work for PSB DX'ing.

TT25 45 Mar 82 (1)

How to best use UHF preamps and traps.

TT26 27 Apr 82 (1)
About auroral DX. What it looks like when seen on TV.

TT27 38 Jly 82 (1)
Best all-channel DX antenna. How height affects performance.

TT28 30 Nov 82 (2)
Information about coax and twin-lead; installation.

TT29 29 Dec 82 (1)
Where to locate and how to use a preamp for TV DX.

TT30 3 Feb 83 (1)
Comparison between the Finco FM-4G and FM-5 antennas.
TT31 27 Mar 83 (1)

Auroral DX tips.

TT1 THE WTFDA "DX'ERS ENCYCLOPEDIA" (36 pages)

The "Technical Topics" columns that ran before April, 1983, were written in a Q and A format, using questions actually sent by members to club HQ. They are not full articles, but brief discussions about specific topics of interest to DX'ers. This package, TT1, puts all of these columns (items TT2-TT31, as listed above) into one good reference.

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TECHNICAL TOPICS (McVey)
   Note: Technical Topics now appears as full articles on aperiodic basis.
       21 Oct 84 (2)
            Servicing antenna rotors.
       40 Nov 84 (2); 20 Apr 85 (2)
            All about selectivity:
                                    theory and applications.
        22 Feb 85 (2); 29 Mar 85 (2)
   082
            Notes on building and installing a home-built SCA decoder.
   083
       32 Sep 85 (2)
           NASA's Skylab ionospheric experiments.
   084
       19 Oct 85 (1)
           All about FM broadcast pre- and de-emphasis.
   085
        31 Feb 86 (2)
            Project: a home-built stereo headphone amp for tuners.
   086
        23 Mar 86 (5); 6 Jun 86 (4)
           All about signal and tuning meters: theory, design, and application.
   087
        2 Aug 86 (3)
            The use of polarization in broadcasting.
   088
        2 Sep 86 (3)
            All about coaxial cable.
   093
        2 Feb 87 (5) THE NATURE OF DX, PART 1
            Fundamentals of propagation of VHF/UHF signals through the troposphere.
        30 Apr 87 (6) TNODX, PART 2
   098
            How tropo DX occurs and where; how to make predictions based on weather.
   099
        7 Nov 87 (5) TNODX, PART 3
            All about path loss, signal fading, etc.
   102
       20 Feb 88 (3)
            A discussion about overloading, spurs, intermods, birdies...
   108
       16 Jly 88 (3)
           Spectral analysis of FM and TV bands and signals.
  110
       3 Nov 88 (3)
           Technical news: what's going on with HDTV.
   111
       4 Mar 89 (4) TNODX, PART 4
           Introduction to ionospheric layers and how they relate to DX.
       4 Aug 89 (2)
            Build a directional, quad-loop VHF antenna for indoor use.
        5 Apr 90 (5); 18 Nov 90 (4)
           All about tuner mods for improved selectivity; ceramic IF filters, etc.
   131
        3 Apr 91 (3)
           Preamp basics; tests of the Winegard UT-2700 tunable UHF trap.
        3 Jun 91 (1)
            The mystery of backscatter.
ANTENNA NEWS Column (Dornbos)
        13 Jun 83 (3)
            (BIB. 1935-1945) Antennas and reflectors; theory. Antenna mounting.
   AN2
        25 Jly 83 (3)
            (BIB. 1945-1947) Tripod as antenna mounts. When & how to buy DX gear.
   AN3
        35 Aug 83 (3)
            (BIB. 1948-1952)
                             All about antenna mast pipe.
        4 Sep 83 (4)
   AN4
            (BIB. 1953-1956)
                              All about towers.
   AN5
        19 Nov 83 (3)
            (BIB. 1957-1960)
                             All about antenna rotors.
   AN6
        15 Dec 83 (4)
            (BIB. 1961-1963) Transmission line theory; balanced vs. unbalanced
        16 Jan 84 (3)
   AN7
            (BIB. 1964-1968) Transmission line theory: impedance.
   AN8
        12 Feb 84 (3)
            (BIB. 1968-1971)
                              Transmission line hints & tricks; the 39¢ trap; baluns.
   AN9
        21 Mar 84 (4)
            (BIB. 1971-1974)
                              Coax cable product comparison; what to buy.
        14 Apr 84 (2)
  AN10
            (BIB. 1974-1976)
                              Traps and filters.
  AN11
        18 May 84 (4)
            (BIB. 1977-1978)
                              Preamps and preamp theory; noise figure.
        14 Jun 84 (3)
  AN12
            (BIR. 1978-1980)
                              Bandpass response of preamps; product comparisons.
  AN13
        40 Jly 84 (2)
            (BIB. 1979-1982)
                              Still more on preamps.
  AN14
       3 Aug 84 (4)
            (BIB. 1983-1984) Consumer Electronics Show report; the decibel.
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ANTENNA NEWS Column, Continued

AN15 13 Sep 84 (2)

Automobile and R.V. antennas.

AN16 32 Nov 84 (3)

All about automotive FM antennas: theory and practice.

AN17 8 Dec 84 (3)

List of addresses of antenna and hardware manufacturers.

AN18 28 Feb 85 (3)

Antennas for scanners: theory and practice.

AN19 28 Apr 85 (4)

All about indoor FM antennas; product comparisons.

AN20 22 Jun 85 (3)

All about outdoor FM antennas.

AN21 38 Sep 85 (4)

More on outdoor FM antennas. The Consumer Electronics Show.

NOTE: a complete bibliography covering almost every magazine article published from 1935 to 1984 on antennas or related topics, was supplied in several installments in the ANTENNA NEWS column. "BIB." indicates the years covered each month.

WHOOPS!

The following article should have appeared under EQUIPMENT REVIEWS:

132 THE ANTENNACRAFT FM-13 - Allen, 30 May 91 (4)

The VHF-UHF DIGEST TECHNICAL INDEX is now complete and updated from 1979 to 1992. (The first version of this index appeared in the Dec 86 $\underline{\text{VUD}}$, pages 2-6.) There are just over 200 entries, covering every edition from June, $\overline{1979}$ to the present. Now, it is possible to locate information about 'most any topic of interest to DX'ers. (To conserve space, the categories on beer, football, and poker tricks have been omitted.) There has been some superb talent contributed to the WTFDA club over the past several years, and there's no reason for those efforts to go unrecognized or unused.

This index is organized by topic, with separate headings for the "Technical Topics" column of Bill Thompson, the "Antenna News" column of Doug Dornbos, the "TV Time Tunnel" column by Tom Bryant, and some of Bill Fahber's "Television News" columns. Every entry has its own reference number, title, author, page number, number of pages, and VUD edition. For example:

038 LOOPS, EARS, AND DX - Grant, 22 Dec 81 (1)

This article, written by Robert Grant, appears on page 22 of the December, 1981 <u>YUD</u> and is one page in length. Titles are in all capital letters, and quick descriptions are given when the title may not explicitly say what the article is about. I have made every effort to make this index complete and accurate, including a few corrections from the original index. It has been double-checked so that, hopefully, no articles have been overlooked or misprinted. I do welcome any comments or suggestions, or notice of any errors/omissions. Copies of this index are always available for free (with a large SASE) from me at the address below.

Any of the items in this index are available as reprints! This extremely popular service will be continued indefinitely. You may have noticed the three-digit number preceeding each entry. This number can be used to order reprints. In addition, it ranks the articles in chronological order.

TO ORDER REPRINTS...just order as you would from any mail-order catalog. Send me a note with the numbers of all the articles you want, plus ten cents per page. Use the number in parentheses to total up page count. Note that I need $10\,\rlap/e$ per page, not per 2 pages as before. This is due to extra postage and copying costs; I do not make any profit doing this. I cannot cash checks payable to WTFDA.

Since starting this reprint service back in '87, I've sent out over 10,000 pages of material to over 100 requestors. At first, I was handling about one request every week; a couple of people even asked for a copy of everything! Every item has been requested at one time or another, reflecting the diverse interests of what many would see as a very narrow-interest club. Antenna articles are always the most popular, as well as equipment reviews, although many of these are becoming obsolete. I urge anyone out there with ideas for articles, pieces of gear or antennas that you are very happy/unhappy with, or new opinions about old topics, to write it down and share it with others. You could achieve immortality on the next index!

TIM McVEY (US address) PSC 45, BOX 1066, APO, AE 09468 (non-US address) 17 Park Gate, Knaresborough, HG5 9DR, England

QSL CORNER & LOGOS RUN

Thomas J. Yingling, Jr.
ARS: KAJTCC
221 Pinewood Road
Baltimore, MD 21222-2345

WI WDOR 93.9 Sturgeon Bay, Box 549, 800 S. th Ave., zip 54235. Received back my PFC (prepared file card) for qsl, signed by an Edward D. ?????? (Ross)

FL WXTB 97.9 Clearwater, 2 Corp. Dr., Suite 550, zip 34622. PFC back in 3 weeks from P. Scott Miller, CE.(Ross)

KS KNGM 91.9 Emporia, Box 506, Zip 66801. Received PFC back in 4 weeks from Steve Pearson, GM. (Ross)

FL WEAT 104.3 West Palm Beach, 2406 S.Congress Ave., Zip 33406. PFC & QSL Card in 2 weeks from Bert Brown, CE. (Ross)

FL WHYI 100.7 Ft. Lauderdale, 2741 N. 29th Ave., Suite 300, Hollywood, FL Zip 33020. PRC & QSL Card from Howard Quinton, CE in 2 weeks. (Ross)

TX KYYK 98.3 Palestine, Box 649, Zip 649, Zip 75802. PFC & letter back in 1 month from Wayne Wilke, CE. (Ross)

KS KHCD 89.5 Salina, 815 N. Walmut, Suite 300, Hutchinson, FL Zip 67501. PFC in 1 month from Fred W. ???, CE. (Ross)

FL WOYK 99.5 St. Peterburg, 9450 Koger Blvd., Zip 33702. PFC in 2 weeks from Dr. Frank Henry ?, CE. (Ross)

MB CHIQ 94.3 Winnipeg, 1445 Pembina Hwy. Zip R3T-5C2. PRC in 1 month from an unreadable person. (Ross)

OK KMSI 88.1 Moore, Box 1924, Tulsa, OK 74101. PFC in 1 month from John R. McNay, Jr., Eng. (Ross)

FL WOZN 98.3 Key West, Box 1874, Tallahassee, FL Zip 32302. PFC in 1 month from Bob T. ????? (Ross)

GA WTUF 106.3 Boston, 117 Remington Ave., Box 3086, Thomasville, GA Zip 31799. PFC in 1 month from Jerry E. White. (Ross)

FL WWRM 107.3 St.
Petersburg, 877 Executive
Center Dr., Zip 33702. PFC in
1 month from David Solinse,
CE in 1 month. (Ross)

AZ KAFF 92.9 Flagstaff, P. O. Box 1930, Zip 86002. Letter from Tim Garritt, Program Dir. who sent nice letter, coveragemap, market data bumper stickers, saying it's their first summer operating with full power of 100,000 watts, & that they have been heard in Alberta. (Elving)

CO KIOX 101.3 Durango, P.
O. Box "X", Zip 81302. Letter from Bruce Anderson, Technical Manager sent very friendly letter, mentioning also the from TX & FL as well regular reception across the

Continintel Divide, but not able to get the signal into Delores, CO, "less than an hour's drive away." (Elving) CO KBLJ 92.1 La Junta, P. O. Box 485, Zip 81050. Paul Coates, GM saying my report is the greatest distance they have heard from. (Elving)

CO KDHT 92.5 Greeley, 9351 Grant St., Thornton, CO Zip 80229. Letter from David W. Sawyer, CE sent a nice letter & bumper sticker, and wanting info on the current "FM Atlas" (Elving)

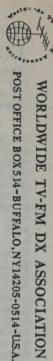
MT KGLT 91.9 Bozeman, 320 SUB/MSU, Zip 59717. Brief handwritten note at bottom or program guide by a person with an unreadable signature who says "Hope you can still us." (Elving)

MT KBOZ 93.7 Bozeman, P. O. Box 20, Zip 59715. Letter from John P. Brandt, Jr. VP/GM. Also send map & station coverage profile. They had heard from a listener in Norway not long ago (1090khz. AM dial). Other DX'ers take note: "We are always interested to hear from out listeners, especially those far way!"

Reporters: Robert S. Ross, VE3JFC; London, Ont & Bruce F. Elvings; Esko, MN. I hope this month column looks okay. I'm trying out Word for Windows on my IBM-PC. Still don't have the video frame grabber yet. I'm out again of QSL items again, but some Logos came in mail. 73's for now, see you down the log.



XEUP * * * RADIO Caoma VARIEDADES 510-47-05 GANAL IIS y 510-47-06	Stores Stores S21-94-44
14.40 Cabrillo 14.40 y 512.52.65	XEOR FM 107 RADIO UNIVERSAL Cabina 518-56-70
XECMQ 132 Radio Cabina Sensación 512-47-52 y 512-15-12	XEJP FM 93.7 JOYA Cabina 518-20-33



WORLDWIDE TV-FM DX ASSOCIATION

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